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ORIGINAL LECTURES.

CHRONIC NASAL CATARRH.

Two Clinical Lectures,
Delivered at the College of Physicians and Surgeons, New York.

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LECTURE II.

GENTLEMEN: A very essential principle in the local treatment of catarrhal affections of the nasal passages is thorough cleanliness; it underlies all others. There certainly can be little remedial value in the application of a medicated spray or powder that only reaches parts covered and protected by a layer of thick, tenacious mucus, or, still less, those encased in an armor of hard, inspissated crusts. On the other hand, I am convinced that this matter of cleanliness, if the latter be understood to mean frequent, daily, even several times a day, syringing of the nose, is overdone, and that it does much harm. The comfort, fancied or real, that a patient experiences after the use of his "nasal douche," even though this relief be only temporary, as it always is, leads him to repeat the process with constantly increasing frequency. Instances are not unknown where patients will use a quart of a strong saline solution under high pressure, through the nose several times daily. Physicians are not entirely guiltless in the matter, for it is not infrequently that the patient is misled by their belief that the cure of a nasal catarrh lies in the use of a "douche." Such practices, I repeat, are productive of no good, but much harm. Even apparent, temporary good effects ultimately fail. The use of strong saline solutions in large quantity, passed through the nares under high pressure, is not infrequently an efficient factor in the propagation if not in the causation, as I believe that I have many times seen it, of a chronic inflammation of the delicate nasal mucous membrane, with its usual result of permanent infiltration of the mucous and submucous structures. All this rather than a means for its relief.

While, then, cleanliness is essential, mechanical means for attaining it are to be used with great discretion. There is nothing curative in their employment, bear that in mind. They are by no means as generally necessary as was formerly supposed. I believe that in my practice I have discontinued their use in more than fifty per cent. of cases, and the latter not only do just as well, but better, being relieved of an element of irritation. All instruments then for cleansing purposes, and I include here the "nasal douche" with its many modifications, anterior and posterior nasal syringes, and the like—I even add cleansing sprays—are only necessary and are only to be used in exceptional cases of aggravated catarrhal inflammation, with accumulation of pent-up or hardened secretions, and in cases attended by the formation and firm impaction in the passages of hard, dense crusts, as in atrophic or fetid catarrh and in ozæna. In simple chronic rhinitis, and in some—perhaps one-half—of the cases of hypertrophic rhinitis their use is not required as a rule. The patient can readily remove the soft, semi-fluid secretions by simply blowing the nose; if he cannot, or if the secretions collect at the vault of the pharynx, one jet of spray containing some alkali or some "Listerine," thrown by you behind the velum or into the anterior nares, just prior to the use of the medicated spray or powder of which I shall speak in a moment, will be amply sufficient to loosen and remove them.

Let us suppose, however, that you are called upon to treat a case such as I have described, where the use of some instrument is a necessity in order that the pent-up or hardened secretions may be removed before you make your application of the remedial agent. What form of instrument shall you use? Which method prefer? Never use a "nasal douche," it is an inefficient instrument for the purpose for which it was designed, insomuch as it does not thoroughly wash or cleanse the nasal cavities, even when carefully used. I prefer, and I strongly advise you to employ, the instrument that I show you here, and which I devised some years ago. It is simply an apparatus arranged to throw a *very coarse spray* in the right direction into the anterior nares. The conical tip you see, closes one nostril completely, the fluid then enters one nasal passage and passes out by the other. Power is obtained by means of a double hand-ball tube. We call it the "nasal spray apparatus." With it the nasal passages and upper pharynx may, except in rare instances, be thoroughly cleansed of secretions and crusts by the use of less than one ounce of the medicated fluid, contained in its bottle or reservoir. Here, at once, is an immense advantage gained over the pint or even quart of fluid used commonly in the "douche." Being a *coarse spray* it washes up, loosens, and dislodges the secretions (unless they are firmly impacted in extreme cases) by the constant commotion of the fluid in the nasal passages, and this very readily and quickly. Explicit directions are to be given in every case to the patient for its use. I have had them printed, and now distribute them to you, they also accompany each box in which the instrument is sold.

In the severer forms of nasal disease—those attended by the formation and impaction of hard, dense crusts and masses in the nasal passages and upper pharynx—the use of this "nasal spray apparatus" will not be sufficient to dislodge them in the first instance, and a more powerful means (short of direct instrumental removal) must be employed. This result is best obtained by the "posterior nasal syringe," of hard rubber or metal, with a long, curved nozzle, which is used to cleanse the parts posteriorly (by way of the upper pharynx and posterior nares). This procedure is always disagreeable, sometimes painful, to the patient, and care must always be taken not to bruise the parts during the introduction of the nozzle of the syringe. Toleration will be established after a time. For cleansing purposes

through the anterior nares—an easier matter—the large, hard-rubber syringe of the aurist answers the purpose well.

Various cleansing and disinfecting solutions may be used by means of these instruments. I use with the "nasal spray apparatus," either one of the following: acidi carbolici, ℈j (this quantity is necessarily often varied to suit the susceptibility of different mucous membranes); sodæ biboratis and sodæ bicarbonatis, āā ʒj; glycerinæ and aquæ rosæ, āā ℥j; and aquæ, ad Oj; or, still better, sodæ bicarbonatis and sodæ biboratis, āā ʒss; "Listerine," ʒj; and aquæ, ad ℥iv.

The "Listerine," in the latter formula, may not be familiar to you. It is a preparation that has lately been introduced by Lambert & Co., of St. Louis, containing the essential antiseptic constituent of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis in combination. Each fluidrachm also contains two grains of refined and purified benzo-boracic acid. Thus it may be used in this or in any of the other solutions of alteratives, astringents, and resolvents of which I shall have to speak (usually in combination with some proportion of water—2-10 to one part "Listerine," according to the indications), as a menstruum, and will be found to serve a useful and pleasant purpose where an antiseptic is desirable. The thyme and eucalyptus, besides being disinfectants, act also as stimulants to the mucous membrane. Where a much larger quantity of a cleansing solution is necessarily used, as with the anterior or posterior nasal syringe, simple warm water, with the addition of borax—ten grains to each ounce—or "Listerine" in the proportion of one part to from two to ten of warm water, will answer the purpose. I sometimes—when the disagreeable odor is strong—use, after a thorough syringing with an alkaline solution, a *spray* of equal parts of "Listerine" and water; it destroys fetor very quickly, and substitutes for it the pleasant odor of the thyme.

Let me say here—what you have probably noticed—that I use no sodium chloride in any of these cleansing solutions; I believe that it does more harm than good, that the saline solution favors endosmosis as it passes over the nasal mucous membrane, and therefore increases rather than diminishes intra-nasal swelling.

Having shown you now how the parts may be cleansed, if this be necessary, I turn to the question of the direct *medication* of the disease which affects them. If I exclude for the moment the use of caustics and of surgical measures in the management of catarrhal conditions of the nares, the treatment is based practically either upon the employment of various *medicated fluids* used in spray by means of some form of atomizer, or upon the use of *medicated powders*, applied with the anterior or posterior nasal powder-insufflator in one of its various forms. Both methods have their warm advocates. My own experience prejudices me strongly in favor of the *spray*. I believe that with a proper spray-tube, and a pressure of compressed air of about forty pounds to the square inch, no more perfect application can be made to the parts. This should always, if possible, be through the posterior nares. The patient depressing his tongue by means of a spatula, the velum palati must be drawn forwards, that is, away from the posterior pharyngeal wall, by means of a suitable metal hook covered by bougie material, a procedure that can be readily accomplished in *all* cases after a little practice, and one that I regard as *absolutely essential* to the thorough success of the application, as it is the only way in which a practicable degree of space can be gained through which to throw the spray upwards and forwards through the nasal passages. To attempt an application with the velum drawn upwards and backwards closely approximated to the pharyngeal wall is nonsense. In this position it will be found the moment that you introduce your spray-tube into the patient's mouth in nine cases out of ten. The palate-hook is held in the operator's left hand, his right holds the spray-tube, and the spray is thus thrown upwards into the vault of the pharynx and forwards through both nasal passages, so that it appears at both nostrils in a fine cloud. Such an application is thorough and complete, not painful nor even very disagreeable to the patient. That the results obtained by a series of such, far exceed those obtained by any other method, ample experience has shown me.

I prefer the high pressure of compressed air to the lower power, so often recommended. I have never done harm to the mucous membrane with it, and the increased power of propulsion in the cloud of spray renders it possible to reach all of the many irregularities and recesses abounding in the naso-pharyngeal passages. I say nothing here except in condemnation of the practice of *forcing* a probe or cotton-holder, charged with a solution of nitrate of silver, up behind the velum in spite of the violent muscular contraction of the parts, or of the use of small brushes, called "post-nasal," used in the same way, which, from their very size, form, and length, render it a physical impossibility to reach the vault of the pharynx, still less the posterior nares, or to enter the latter; medication by such means amounts to little.

But it is hardly to be expected that the general practitioner will be able to command the use of a costly compressed-air apparatus with air-pump and spray-tubes, such as I show you here; then in default of this apparatus, the ordinary "hard-rubber atomizers," which can be bought at a moderate price everywhere, and which are constructed upon the principle of either Richardson or Bergson, must be used, and can be, with good effect. A very good atomizer is manufactured by the Davidson Company, and called Hard-rubber Atomizer, Continuous Spray, No. 61. In all, the propelling power is developed by the use of the hand air-bulbs; these should always be double. The hard-rubber tube of the instrument is provided with two separate tips, so that the spray may be thrown upwards (naso-pharynx), or directly forwards (anterior nares). The disadvantages of this instrument, which make it inferior to the use of the compressed air apparatus, are the length of time that it takes to develop the propelling power by means of hand-ball pressure, an important point when the instrument is in position in an irritable throat, and the fact that both the operator's hands are required to work it, and that, therefore, he cannot use the "palate-hook" to draw the velum forwards. You will rarely find a patient with a throat tolerant enough to allow you to throw the spray, with this instrument, up into the vault of his pharynx and posterior nares without the use of the "palate-hook," and you had better, therefore, confine yourself to applications made through the ante-

rior nares and forced well back into the pharynx, if you use it.

The most useful forms of powder-insufflator I show you here. One, you see, is arranged to deliver, by means of the air-pressure developed by these hand-balls, a charge of the finely pulverized powder with which the bottle is charged into the anterior nares; the other, with a longer curved tube, performs the same operation in the posterior nares.

Personally, I place very little reliance on the various "pocket inhalers," etc., that are popularly recommended for the cure of "catarrh." Ammoniated and iodized preparations sometimes exercise a temporary benefit, but they can also readily do harm, if used to excess. Remembering this, if you choose to recommend them for the moral effect they exercise upon your patient, I have no objection.

I ask your attention now to the specific *remedial* treatment of the various forms of rhinitis. *Simple chronic rhinitis* requires, first, thorough preliminary cleansing of the passages. This may be accomplished usually by the patient using his handkerchief, unaided by any artificial form of apparatus. If the latter, in exceptional instances, be requisite, use the "nasal spray apparatus," with one of the given solutions. The post-nasal syringe is never required in this form of the disease. Following the cleansing process comes the remedial, which must be undertaken by physician or patient, with at first daily, and then gradually diminishing frequency, until, at length, a time is reached (after several weeks) when the patient is told to present himself for treatment only when he develops, if he should, a recurrence of any old symptoms, or an attack of acute rhinitis. This consists in the application of the medicament, usually a mild alterative, resolvent, or astringent solution or powder. If the *spray* apparatus, with compressed air, and some medicated solution, be chosen as the means, as I advise, some one of the following formulæ may be used, with preferably the *post-nasal* spray tube, but also with the anterior, or both. If the "hard-rubber atomizer" is the only instrument available, then the spray is thrown through the anterior nares. 1. Zinci iodidi, gr. v–℥j; 2. Zinci sulpho-carbolatis, gr. v–℥j; 3. Zinci sulphatis, gr. v–℥j; 4. Ferri et ammoniæ sulphas, gr. v–℥j; 5. Ferri perchloridi, gr. v–℥j; 6. Acidi tannici, gr. v–xx–℥j; 7. Potassæ chloratis, ℈j–℥j, are the solutions that I most commonly use, given in the order of their preference. In any of these formulæ, "Listerine" may be substituted, in part, for the water, in the proportion of one part of the former to three of the latter. I ordinarily do so. If the simple rhinitis has advanced far towards the hypertrophic stage, then I commence at once with: Iodini cryst., gr. iv; Potassæ iodidi, gr. x; Zinci iodidi, ℈j; Zinci sulpho-carbolate, ℈j; "Listerine," ℥j; Aquæ, ad ℥iv, as a spray. These applications should always be selected with due deliberation, in view of the special indications presented by the case, care being exercised that the application is of such a strength as to cause *no irritation* of the nasal mucous membrane, one much more susceptible than that of the pharynx or larynx. A preliminary trial of the strength of the solution should always be made.

In case these spray-applications are not well borne, or perhaps in accordance with the special views of the physician, a medicated powder may be substituted. Powders are particularly adapted to the treatment of this form of the disease, where the secretions are readily removable, the parts soft and absorptive. In hypertrophic rhinitis they are, I believe, of little use, and in atrophic or fetid rhinitis contra-indicated. One such powder as, for instance, the following, may be applied by means of the anterior, or, if possible, the posterior nasal powder-insufflator that I have shown you: Acidi salicylici, gr. x; acidi tannici et bismuthi subcarb., āā ℥j; or this, Ferri et ammoniæ sulph., ℈j; pulv. amyli, ℥j. Other combinations will suggest themselves.

Whatever be the plan of treatment instituted, not alone in this but in the other forms of rhinitis as well, and its details may readily be determined upon from what has and will be said. It is to be *steadily persevered in*, not necessarily in all cases under the direct manipulation of the physician himself, but certainly in all cases under his general supervision, and at suitable intervals, which will vary according to the grade of the disease, until the morbid conditions for which it was undertaken are alleviated. Daily applications at first, then three times weekly, then twice, and finally at increasing intervals dependent upon the indications, until a period of at least eight to ten weeks has been covered, will be the rule. The necessity even now for the immediate treatment of any subsequent recurrence of old symptoms, which will quickly yield, and for any attacks of acute rhinitis, which may or may not occur, I have spoken of. All this is tedious to the patient, I know, but, Gentlemen, there is no royal road to the successful treatment of nasal catarrh.

In speaking to you now of the treatment of the next form—*hypertrophic rhinitis*—all that I have just said is applicable to its earlier stage, except that instrumental cleansing will often be requisite; that occasional use of the post-nasal syringe is a necessity; and that I prefer to commence at once with the formula of iodine, iodide of potash, zinc, etc., that I have given you. If the disease is moderate in extent, and the hypertrophy of the tissues not excessive, complete resolution may be effected by these means. On the other hand, if the process be first seen, as it so often is, in its advanced stages, when a firmly organized neoplastic tissue exists in a large degree, and seriously encroaches upon, even occludes, the nasal cavities, associated with a chronic inflammation involving the greater part of the upper pharyngeal mucous membrane, and hypertrophy of the adenoid tissue at the vault of the pharynx, the above plan of treatment, as a curative means, is *useless;* some alleviation of the more prominent symptoms may be obtained, but more heroic measures will be required to cure, chiefly the use of some means by which the hypertrophied membrane and tissues can be destroyed. I am bound to admit that it is in the use of these means, mainly surgical, and in this form of rhinitis, that you will attain your most speedy, complete, and brilliant cures. The destructive agents that are at your command are fuming nitric acid, glacial acetic acid, chromic acid, the galvano- or actual cautery, and nitrate of silver. These I have mentioned in the order in which I would select them for use in any case. I now add the Jarvis écraseur, and, for the adenoid growths of the pharynx, the post-nasal forceps.

The little operation that I am about to describe to you first, is one that you will often find necessary; you can

readily perform it, and I assure you that it will give most gratifying results.

Let us suppose a case of hypertrophic rhinitis in which you find the hypertrophied mucous membrane located mainly over the inferior turbinated bone, in one or both nasal passages; there is partial, intermittent, or permanent occlusion occasioned by its presence. Take a small probe, its end wrapped in absorbent cotton, and saturate this with *nitric acid*, press out the excess of acid, pass it then through a suitable nasal speculum into the naris to be operated upon, under the guidance of a good reflected light from your forehead mirror, and with a steady hand now draw it along, or press it firmly upon, the turbinated bone at its point of greatest convexity, contact being kept up for a few seconds. The pain quickly passes away, and on withdrawing the probe the parts are seen to have become well whitened or blanched; moderate inflammatory reaction with a slough of varying depth follows, while the consolidation of the sub-mucous tissues by the hyperplastic results of the inflammatory process, and the contraction of the cicatricial tissue occupying the site of the destroyed parts, serve to reduce the hypertrophy and its resultant nasal obstruction in a most satisfactory manner. Frequently, one application answers all purposes in freeing the nasal passage to the extent of allowing of uninterrupted respiration. The process, however, may require repetition.

The operation with *glacial acetic acid* is performed in the same manner; it is less painful, causes little secondary inflammation, and destroys less tissue. This agent, then, may be selected for the more moderate and more recent cases of hypertrophy.

Chromic acid is less painful in its use than nitric; its fumes, though, are distressing to the patient. It possesses no advantage, for our purpose, over the other two.

The *galvano- or actual cautery*, either for the destruction of tissue in the nasal passages or at the vault of the pharynx, is, of course, a radical and efficient agent. I allude to the former; the latter is hardly ever used. Its action is rapid, complete, and not very painful; but as its use requires much skill, especially when employed in the naso-pharyngeal region, you will probably prefer to entrust such cases to the hands of the specialists. Instances where it will be required are not very many, for I believe that we may accomplish the same results with less heroic means. A full description of the instruments, and the method of using them, will be found in most works on diseases of the throat and nose, and to these I refer those of you who care to pursue the subject.

Nitrate of silver, as a destructive agent, I mention but to condemn. It causes but a superficial slough, and the application is of necessity frequently repeated in treating hypertrophied tissue of any extent; moreover, owing to its powerfully stimulating qualities, it excites cell proliferation, and causes structural changes that are not desirable.

After the use of any form of *caustic* in the nasal passages, immediately upon the withdrawal of the probe, the parts should be flooded with an alkaline solution. The subsequent treatment of the case, at least until the slough has separated, and the resultant ulcer healed, is based upon ordinary principles of cleanliness.

Now, there are two forms of hypertrophy of the tissues over the inferior turbinated bones that are occasionally met with clinically, and which cannot be successfully treated by any of the methods of which I have thus far spoken. The operations for their relief need then a special description. You will be able to perform them readily when you have acquired a little skill in intra-nasal surgery. There is no reason why you should not attempt them. The *first* is where the hypertrophy is *excessive* and is mainly limited to the *anterior extremity* of the turbinated bone; to remove it, which you must do surgically, the procedure devised by Dr. Jarvis should be undertaken. The growths are usually sessile, but can be readily engaged in a loop of fine steel wire passed through a delicate *écraseur*, devised by the same surgeon, if their base be first transfixed with a slightly curved needle, until the point projects above the growth into the nasal cavity. The wire loop is then arranged in such a manner that the portion of the needle projecting from the nostril, as well as the needle's point, is encircled by it, very much after the manner of a hare-lip suture. The wire loop is thus prevented from slipping off, and a portion of the hypertrophied tissue is readily secured, and is removed by screwing down the milled nut of the *écraseur* and drawing the wire home. This little operation is quickly done, and is not very painful or bloody; the relief that it affords is great.

More common than the above, is excessive localized hypertrophy of the mucous membrane covering the *posterior extremities* of the inferior turbinated bones. It may be, as I told you in the first lecture, of such an extent that nearly the whole posterior naris is occluded by an irregular, grayish or whitish, sessile tumor, which projects outwards into the free space of the pharynx. Owing to its peculiar position it cannot be safely reached and destroyed by any caustic method, removed it must be to cure the patient. The small *écraseur* already mentioned, here again affords a satisfactory and efficient means for its entire extirpation. The instrument is passed through the nasal passage upon the affected side, the size and location of the growth having first been carefully studied, and the form of the wire-loop arranged accordingly, and no great difficulty will be experienced in ensnaring it. Slight traction on the instrument, and a few turns of the milled nut will now receive it firmly in the loop, and the mass is then *slowly* cut through by tightening the wire. This little operation alone, if judged by its results, constitutes one of the most marked advances of recent rhinoscopic surgery.

Still another special operation is required in cases in which the hypertrophy of the *glandular structures* at the vault of the pharynx is excessive, as is so often seen in young subjects, the victims of a hypertrophic rhinitis. The tumor thus formed, which we term *adenoid tumor* or *adenoid vegetations*, varies, as I have said, greatly in size and configuration, but if it be large enough to interfere with nasal respiration, if it modify the voice, and threaten danger to the middle ear by pressure upon the Eustachian orifices, if it give rise to excessive secretion and cause general discomfort to the patient, there is no question but that its removal is indicated. On the other hand, I would warn you against the too ready and indiscriminate extirpation of these

tumors. A certain degree of thickening of the tissues at the vault of the pharynx is not an uncommon condition in young children, who suffer from no symptoms of nasal catarrh. Again, this structure atrophies normally towards puberty. To interfere with it surgically, therefore, simply because it exists, seems to me to be a grave mistake.

Should you determine, however, after what I have said, that its removal in a given case is proper, resort at once to surgical measures, for medicated sprays are totally ineffectual, and caustics are of little use, as well as difficult of thorough application. A pair of long forceps, such as I show you here, suitably curved, to be passed behind the velum and furnished with cutting blades at their extremity (Woakes' forceps, modified by Semon), will be the best means. With them you may undertake the operation with confidence, even though you possess but limited experience. With care and some anatomical knowledge you can do no harm to contiguous parts; the operation, seemingly formidable, is, in reality, simple. Hemorrhage is slight, ceases spontaneously, and inflammatory reaction is never such as to excite any apprehension—at least, such is my experience. When the hypertrophy of the tissues extends broadly, in the shape of small, slightly elevated nodular masses, over the entire pharyngeal vault, a sharp curette such as is used in uterine operations, but suitably curved to pass behind the velum into the upper pharynx, will answer a better purpose in scraping away the vegetations than the forceps, which would here be difficult of exact application.

I need not detain you long in speaking, in conclusion, of the local treatment of *atrophic* or *fetid rhinitis*. Unfortunately, the disease is beyond our powers of cure. The best that we can promise the patient is to mitigate his urgent symptoms. I am well aware, in making this statement, that some profess to cure; I have not been so fortunate as to obtain this result. Our indications for treatment are twofold: first to cleanse and disinfect, and then to keep clean and disinfected, the nasal passages of all decomposing crusts and secretions; and, second, to stimulate the atrophied mucous membrane, with a view to the regeneration of function and character of secretion in the muciparous follicles and serous glands, if this latter can be accomplished, a matter which my experience has led me strongly to doubt. The first indication is met by the daily use of the anterior or post-nasal syringe, occasionally by the necessary direct removal of hard crusts by means of forceps, and thorough washing of the passages with an antiseptic and alkaline solution until all offending secretions are removed. I have given you some formulæ suitable for this purpose; others are: glycerini acidi carbolici, ʒjss; sodii biboratis, ʒj, aquæ, Oj: liquoris potassi permanganatis, ʒjss, sodii biboratis, ʒj, aquæ, Oj: acidi salicylici, gr. x, sodii bicarbonatis, ʒj, aquæ, Oj. I, as well as my patients, prefer the solution with "Listerine," given above.

The second indication requires the use of such drugs as sanguinaria, galanga, carbolic acid, creasote, salicylic acid, iodine, bromide of potassium, etc., which are recommended by Dr. Bosworth as efficient in the early stages of the disease. They are mentioned in the order of preference, and should be used in solution, by means of the atomizer. They probably act by giving rise to a local irritation of the mucous membrane, which in turn leads to a stimulation of the glandular structures, and an increased discharge of serum and mucus. Dr. Seiler advises, on the contrary, nitrate of silver in powder diluted with starch, and says that it has given him good results. As next in effectiveness, he recommends the use of a weak solution of the sulphate of iron and ammonia. My own experience with any of these means has been limited; such as I have used have been ineffectual in their results, and I can therefore only reiterate my belief that, in the present state of our knowledge, the disease is incurable.

This finishes, Gentlemen, what I have to say to you upon this special subject of chronic catarrhal diseases of the nose. My remarks have, necessarily, been drawn out to some length, and have occupied some time; if, however, I have succeeded in convincing you that *all* is *not* simply "nasal catarrh" that comes to your net, if I have taught you to recognize, by my descriptions, the various forms of chronic rhinitis, and shown you how to treat each intelligently, according to its individual indications, the time will not have been misspent, and the purpose of these lectures has been accomplished.

ORIGINAL ARTICLES.

WOUNDS OF THE INTESTINES.[1]

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THERE are few topics in surgery that have received less attention than the nature and treatment of wounds of the intestines. Even our text-books say very little upon the subject, and that little is seldom founded upon original observation. When we consider the frequency of these lesions, their great gravity—if not almost uniform fatality, and the doubts and misgivings with which they are approached by most practitioners, it will not require any apology on my part for bringing the matter formally before this meeting.

While every other branch of surgery has been enriched by papers and monographs almost in countless numbers, the literature of wounds of the intestines is exceedingly scanty, and, in many respects, unsatisfactory. The older writers have transmitted to us nothing of value, and even as late as the close of the last and the beginning of the present century not one of our systematic writers had any fixed or settled notions upon the subject. The author who came nearest to this was Benjamin Bell, of Edinburgh, whose *System of Surgery*, in six octavo volumes, published nearly one hundred years ago, did much to diffuse a taste for surgery, not only in Scotland and England, but on the Continent of Europe and in the United States. It is an interesting fact that the first foundation of a rational treatment of lesions of this kind was laid in this country in 1805, by Dr. Thomas Smith, of St. Croix, in his *Inaugural Dissertation*, presented to the Faculty and Trustees of the University of Pennsylvania. His

[1] Read before the American Surgical Association, April 30, 1884.

experiments, twelve in number, were performed upon dogs, with a view, mainly, it would seem, of ascertaining the best mode of sewing up wounds of this description, without going at all into the question of their mode of repair. Seven years after this, namely, in 1812, appeared the admirable treatise of Benjamin Travers, of London, entitled, *An Inquiry into the Process of Nature in Repairing Injuries of the Intestines*. His researches were more especially directed to the elucidation of penetrating wounds, and to the proper management of the bowel in strangulated hernia—topics discussed in a very able and scientific manner. In conducting these researches, the English surgeon availed himself of experiments upon dogs, and of the ample clinical opportunities afforded him at Guy's and St. Thomas's Hospitals. I need hardly add that Mr. Travers's essay was one of the most original and important contributions made to surgical science in the early part of the century. The work was not republished in this country, and did not, I think, excite much attention even on the other side of the Atlantic. For a knowledge of its valuable contents the surgeons of Europe and America were mainly indebted to that storehouse of surgical facts, Prof. Samuel Cooper's *Surgical Dictionary*, a work of world-wide celebrity.

Among the French surgeons who in the first third of the present century busied themselves in enlarging our knowledge of the treatment of wounds of the intestines by an appeal to experiments upon the inferior animals may be mentioned, with special commendation, the names of Jobert, Lembert, Gély, Amussat, and Choisy, on account of the peculiar forms of sutures respectively recommended by them.

Convinced that this department of surgery was susceptible of still further investigation, I commenced a series of experiments in 1841, which was continued, with occasional intermissions, until the end of 1843, when an account of them was published in the *Western Journal of Medicine and Surgery*, issued at Louisville, under the editorship of Drake, Yandell, and Colescott. A small edition was also issued in separate form, but as the printing office in which it had been stored away was soon after consumed by fire, few copies were saved. Hence the reason why such little notice has been taken of my labors. Indeed, the only account I have ever seen of them is comprised in the *Surgical History of the War*.

The object which I had in view in undertaking these researches was, first, to ascertain the process employed by nature in repairing wounds of the intestinal tube; and, secondly—and more particularly—to determine, if possible, the best methods of treatment. The experiments, upwards of seventy in number, were performed exclusively upon dogs, as the most eligible animals that could be selected for the purpose. The wound was generally made in the small bowel, not only because it is more readily accessible than the large, but because, when injured, it is more liable to give rise to extravasation of fecal matter, and also, possibly, to high inflammation.

Gunshot injuries of the bowels, so common during the War of the Rebellion, are more ably and fully discussed in the *Surgical History of the War* than in all other works put together, and what is true of wounds caused by firearms is equally true of other injuries of the intestinal canal. Dr. Otis spared no pains to embody in his chapter on this subject the latest information to be found in the magnificent medical library accessible to the Surgeon-General of the Army and his intelligent and laborious assistants, to whom the profession is so much indebted for our Army Medical Reports.

Wounds of the intestines may, like similar lesions in other structures, be incised, contused, lacerated, or punctured, the latter including those made by gunshot. Incised wounds are occasionally inflicted accidentally upon the bowel in hysterectomy and ovariotomy, and in operations performed for the relief of strangulated hernia. All injuries of this kind of the intestinal tube, whether single or multiple, simple or complicated, derive their chief importance from two sources—escape of fecal matter and peritoneal inflammation. The accompanying hemorrhage is generally a subordinate occurrence.

The manner in which wounds of the intestinal tube are repaired depends very much upon their character. Simple incised wounds, if properly treated, heal by union by the first intention, as similar wounds involving the skin, muscles, and other structures; that is, the effused plasma soon becomes organized and is transformed into cicatricial tissue. When the suture is carried through the mucous membrane the healing process is more tardy, and, if some of the stitches should give way prematurely, so as to allow the edges of the wound to gap, the union will be effected mainly through the agency of the serous coat. Granulations always form with difficulty, aud rarely afford much aid in filling up the breach. In nearly all of my experiments upon dogs, I noticed that the wounded bowel at the seat of the injury was speedily glued either to the omentum or to some adjacent coil of intestine, thereby forming, in most cases, an effectual barrier to fecal effusion. Conjecturally, we may assume that a similar occurrence obtains in a human subject. The ligatures, when the ends are cut close, are always discharged into the interior of the tube, the period at which this takes place varying with many circumstances from ten to fourteen days, as the ordinary average, to three or four weeks, as the extreme. Lacerated, ragged, contused, punctured, and gunshot wounds heal in the same manner as incised, but the process is more tardy and more liable to fail. When wounds, of whatever kind, are left to themselves, or to the unaided efforts of nature, the subjects of them either perish from their effects, as fecal effusion, peritonitis, hemorrhage, or septicæmia, or, if they recover, their safety is due to the adhesions which the injured portion of the tube contracts with the surrounding parts.

The diagnosis of wounds of the bowel is a matter of primary consideration, as upon its prompt determination the success of our treatment must mainly hinge. The possibility of this will, of course, mainly depend upon the situation in which the bowel is found at the time of the accident. If it has escaped

through the wall of the abdomen, it will generally be easy to find the injured part by the egress of some of its contents, as feces, mucus, or bile, or all these together; and so also when there is a discharge of some, or all, of these substances through the outer wound, although there be no protrusion of the intestine. The coast in both of these conditions is sufficently clear, so clear, indeed, that he who runs may read and accurately interpret. But it is altogether different when the abdomen has been pierced by a narrow instrument, as a knife or a dirk, or perforated by a bullet. In such an event the bowel does not protrude, and hence the true nature of the case must be solely a matter of conjecture. All that is positively certain in such event is that there is a wound in the wall of the abdomen. The surgeon, especially if called immediately or soon after the receipt of the injury, must be in doubt whether the weapon has entered the bowel or not. In reflecting upon the subject, he recalls the fact that a bullet, a rapier, a sword, or a ramrod has occasionally passed through the abdomen, and, perhaps, even emerged at the opposite side, without, in the slightest degree, interfering with any of its contents. The records of surgery furnish many such cases.

The two principal signs which must serve to guide us in these uncertain cases are tympanites and a discharge of blood by the anus. The occurrence of tympanites is unquestionably a symptom of great value. Jobert, who was the first to notice it, regards it as the most reliable of all the phenomena when there is no escape of feces, mucus, bile, or other fluid at the abdominal wound, and in this opinion the results of my personal observation fully coincide. The tympanites supervenes at various periods; sometimes almost immediately after the wound in the bowel has been received, and is then always of proportionate diagnostic value; at other times it supervenes very gradually, and in some cases, again, it does not make its appearance under twenty-four, thirty, or thirty-six hours. However this may be, it is always diffused, not circumscribed, and sometimes reaches an enormous height, the belly emitting a hollow, drum-like sound on percussion, and is then always very painful.

Although tympanites is generally present in lesions of this kind, there are cases in which it is entirely absent, as, for example, when the wound in the bowel amounts to a mere puncture, in which the opening is effectually closed by the protrusion of the mucous membrane, thereby preventing all escape of gas into the peritoneal cavity.

A discharge of blood by the anus I regard as a very valuable symptom of the existence of a wound in the bowel. It is especially valuable when it makes its appearance within a short time after the infliction of the external wound, and when it continues, more or less abundantly, for some days afterwards. As the blood is always intermixed with the contents of the bowels, it seldom comes away in a pure state, but is generally of a dark color, and of a grumous consistence.

No useful conclusions can be deduced from the shock and the pain which attend lesions of this character, since both vary greatly in different cases and in different circumstances, some persons suffering very little, while others, owing to the peculiarities of their nervous endowments, experience extreme distress.

In regard to probing wounds of this kind, the universal sentiment of the profession is opposed to it, on the ground that, while it can do no good, it would often be productive of great harm by disturbing the relation of parts, and thus endangering fecal effusion. I do not think, however, that this rule should apply to the mural wound. Here a probe, properly used, might at least afford useful information in regard to the direction and extent of the external injury.

In the treatment of wounds of the intestines two leading indications are scrupulously to be kept in view—the prevention of fecal effusion, and the occurrence of peritonitis. To secure the first, the only safeguard is efficient suturing of the wound. A case, it is true, occasionally recovers without any precaution of this kind, but this is owing to good luck rather than to good treatment. There was a time when surgeons, even of great distinction, considered the employment of sutures in wounds of the bowel utterly useless, if not absolutely detrimental. John Bell, a specious writer and an eloquent lecturer, who flourished in the early part of the century, and one of whose chief delights it was to walk roughshod over the teachings of his predecessors and contemporaries, declared that, if there be in all surgery a work of supererogation, it is the sewing up of a wounded gut. He taught that there was no peritoneal cavity, and that, consequently, there could be no fecal effusion in wounds of the bowel. The illustrious Scarpa, of Italy, for a long time the only great surgeon of that country, was equally prejudiced against the use of sutures; he considered them not only useless, but even dangerous. The practice in those days, and even at a much later period, was, in all lesions of this description, to pass a suture through the wound, and to bring out the ends at the external opening, a practice necessarily and inevitably followed by an artificial anus, and one by no means always, if indeed generally, free from the risk of fecal extravasation. The late Professor Gibson, of Philadelphia, writing in 1838, advocates a similar procedure; and Professor Syme, of Edinburgh, four years later, expressed himself to the same effect. These views may be regarded as a pretty correct expression of the teachings of surgeons in regard to this class of injuries forty-five years ago, notwithstanding the light that had been thrown upon them by Travers, Sir Astley Cooper, Lawrence, and others in England, and Jobert, Lambert, Gély, Choisy, and others in France.

The question here naturally arises, Should all wounds of the bowel, however small, be sutured? Upon this subject there was certainly till recently, if indeed there is not still, some diversity of opinion. Dionis, Palfin, Heister, and Sabatier state that enterrorhaphy is unnecessary when the wound does not exceed the diameter of a goose-quill or a penknife; and views of a similar nature are to be found in other writers, as Sharp, Richerand, Boyer, and

Jobert. On the other hand, there are surgeons who are opposed to the return of the bowel into the peritoneal cavity, however small the intestinal wound, without the employment of sutures, lest fecal extravasation should ensue. The great Benjamin Bell, of Edinburgh, writing near the close of the last century, holds, in the midst of the darkness that surrounded him, the following emphatic language: "However small a wound," he says, "of the intestine may be, it ought always to be secured with a ligature, for although it is alleged by some that we should rather trust to nature for the cure of a small opening than to insert a ligature, to me it appears that the opinion is by no means well founded, insomuch that I would not leave even the smallest opening that could admit either feces or chyle to pass, without stitching it up. Much danger may ensue from omitting it, and the hazard of the patient cannot be increased by the practice being adopted."

This advice of the sagacious Scotchman so clearly and emphatically enunciated nearly a century ago, is now the universal practice in all cases of wounds of the bowel, however diminutive, based as it is upon the well-ascertained fact that enterrorhaphy, when properly performed, is a harmless operation as compared with the risk of fecal extravasation and the consequent certainty of peritonitis.

It was with a view of testing this very matter, by determining how far even a small wound of the bowel might safely be entrusted to nature for a cure without the aid of sutures that I was induced to undertake the elaborate series of experiments alluded to in the opening part of this paper. These researches afforded abundant proof of the correctness of Mr. Bell's views; for, although I found that the wound, when it did not exceed two lines, or the sixth of an inch, was always closed by the intrusion of the mucous membrane, yet this did not always protect the parts from the effusion of fecal and other matter. Hence I have ever since laid the greatest stress, both as an author and as a public teacher, upon the importance of close suturing in all wounds of the intestines, however small. It is easy to conceive that even a very small wound, although completely occluded by the mucous coat at the moment of the restoration of the bowel, might, by the transit of stercoraceous matter, or by violent peristaltic action, become so unlocked as to admit readily of the escape of fluid or solid substance into the peritoneal cavity. Let it ever be borne in mind that the smallest possible quantity of fecal matter would be sufficient, certainly in many cases, if not in all, to light up fatal inflammation; and let this fact serve as the keynote to our practice in all cases of wounds of this description.

Judging from the results of my own observations, I have long been of the opinion that there are only two sutures that should ever be employed in sewing up a wounded bowel. These are the continued and interrupted, with the modifications of the latter by Lembert and Gély. As to Jobert's method, which consists in invaginating the ends of the bowel, when completely cut across, so as to place the two serous surfaces in immediate contact to facilitate their prompt union, the operation is not only extremely difficult, but very liable, even if successful, to be followed by more or less contraction of the tube at the seat of the injury, thereby interfering more or less seriously with the transmission of its contents.

The interrupted suture is, as a rule, preferable to the continued in all wounds of the bowel, whatever their extent or direction, whether they embrace the entire calibre of the tube or only a limited portion, and whether they are circular, oblique, or longitudinal. The operation executed with a long, slender sewing-needle armed with a thin but strong, well-waxed silk thread, is comparatively simple, affords ample security against fecal effusion, and is never followed by injurious contraction of the tube. The sutures should be placed not more than one line and a half, or the eighth of an inch, apart, and the ends, tied in a double knot, should be cut off close, so that, in time, the sutures may find their way into the bowel and be discharged along with its contents. I deem it very important that each suture should be fully one line from the edge of the wound, and that the needle should be passed deeply through the wall of the bowel instead of embracing its entire thickness, an arrangement which would almost inevitably be followed by more or less puckering, and by the consequent retardation of the cure. The operation of uniting the bowel where the division is complete, will be greatly facilitated if the first suture be inserted at the mesentery and the second immediately opposite.

The best, certainly the safest, ligature for suturing a wounded intestine is ordinary sewing-silk, well waxed, and inserted with a long, sharp sewing-needle. The carbolized catgut ligature is liable to give way prematurely, and should, therefore, be avoided.

In the modification of this suture by Lembert, the object is to invert the edges of the wound so as to bring the two serous surfaces in immediate and firm contact to establish, as it were, union by the first intention. Great advantage has been claimed for this form of suture, but this is not so apparent when it is remembered that, unless great care be taken in introducing it, it is liable to be followed by more or less contraction of the tube. In making this suture, the needle makes two dips on each side of the wound instead of one, as in the ordinary procedure.

"Gély's suture, which is merely a modification of that of Lembert's, is made with two needles inserted near the angle of the wound, about one line from its edge; they are then carried along the interior of the bowel, parallel with the wound, for the sixth of an inch, when they are brought out precisely at the same level, so as to appear again on the peritoneal surface. The threads are then crossed, the right needle being passed through the puncture made by the left, and conversely, when the ends are firmly tied and cut off close as in the ordinary operation. The number of sutures varies, of course, according to the extent of the cut. In this way the edges of the wound are thoroughly inverted, and consequently all danger of fecal effusion is pre-

vented; the coaptation, in fact, is so accurate as to conceal the ligatures."[1]

The treatment of wounds of the bowel by the continued suture has afforded good results in my experiments upon dogs. The chief objection to it is that it leaves the edges of the wound in an uneven, puckered condition, which interferes perhaps somewhat with rapid union. This, however, may be prevented in great degree, if not wholly, by the employment of a double thread after the fashion of the glover, although I do not consider this at all essential to success. Of the seventeen experiments performed with a single ligature, not one terminated fatally. The wounds in two of the cases were transverse, oblique in three, and longitudinal in twelve. The wound in one of the latter was six inches in length. The dog, a large, old one, was killed on the twentieth day, when every trace of suture had disappeared, with the full restoration of the calibre of the tube. I must not omit to state that in all these experiments the suture was passed through the fibrous tunic of the bowel, or, in other words, outside the mucous membrane. We have here then also a very valuable suture for sewing up wounds of the intestines, especially well adapted to the treatment of longitudinal and oblique wounds; not so well, I think, to the treatment of transverse ones as the interrupted.

The suturing of the wound having been completed, and any foreign substance that may be present removed, the bowel is restored to its natural situation, followed by the omentum, in the event of its prolapse. It is hardly necessary to say that the protruded structures should be treated in the most gentle manner; any wiping that may be required should be performed with the softest cloth, and all firmly adherent matter should be picked off with the forceps. Generally speaking, the best way of cleaning the parts is to make free use of the syringe, charged with warm water. The operation may be completed with a one to one thousand solution of corrosive sublimate. The return of the bowel will be materially facilitated by the use of a little olive oil. If any serious obstacle offer, it must be surmounted with the probe-pointed bistoury, or by puncture of the tube, if it depend upon the presence of gas. The wound in the wall of the abdomen should be closed in the same manner as in ovariotomy, the sutures being carried through the peritoneum so as to protect the parts effectually against hernial protrusion, a thing never to be lost sight of after such lesions.

The question arises here, What should be the conduct of the surgeon when the bowel is wounded, but not prolapsed, owing to the small size of the mural opening? I do not think that I can answer this question better to-day than I did forty years ago, when we knew comparatively little of abdominal surgery, and when the most visionary enthusiast could not have dreamed of half the triumphs that have since awaited it. The case in question is a suppositious one, and is thus stated: "A man, after having indulged in a hearty repast, receives a penetrating wound in the abdomen from the thrust of a dirk or knife; the bowel is pierced, or, it may be, nearly divided, and there is a copious discharge of fecal matter, both externally and into the peritoneal cavity, as is evinced, in the latter event, by the excruciating pain, the gastric oppression, and the collapsed condition of the sufferer. Here the most prompt and decisive measures must be resorted to, or the person will perish from peritoneal inflammation, with as much certainty as if his skull had been fractured and a portion of his brain had been let out. It will not do for the surgeon to fold his arms, and look upon the scene as an idle and disinterested spectator. Far otherwise; he has a duty to perform, and that duty consists in dilating the external wound, if it be not already sufficiently large, in hooking up the injured bowel, and in closing the solution of continuity with the requisite number of stitches, at the same time that the effused matter is carefully removed with tepid water and a soft sponge. All wiping must, of course, be carefully avoided, as this would add much to the risk of peritonitis.

"By the above procedure, which, under the circumstances pointed out, I should not hesitate to pursue, the patient is not placed in a worse condition than a female who has undergone the Cæsarean section, or a person whose abdomen has been ripped up in the first instance; recovery from both of which is not, as is well known, of unfrequent occurrence."[1]

It is a rule with all educated surgeons to do the work which they are called upon to perform in as complete and thorough a manner as possible, and nowhere is this precept of greater importance than in the treatment of wounds of the intestines. A case recently reported by Professor O. K. Roberts, of Louisville, Ky., will aid me in illustrating my meaning. A man was cut in the abdomen with a pocket-knife; the wound was three inches long; the bowel protruded, and was pierced at two points, one opening being of the size of a common lead-pencil, the other of a pea. The knife in its passage had stripped off the serous membrane over a space of one inch by one-quarter. There were two slits in the mesentery, each one inch in length; and the patient had lost much blood. The mural wound was closed by sutures which embraced only the skin and superficial fascia. None of the bleeding vessels had been secured, and active bleeding was still going on from three points in one of the wounds in the mesentery, the other being occupied by a clot. It was in this condition that the man was found by Dr. Roberts, shortly after his wounds had been dressed by another surgeon. Satisfied at a glance that the case had not been properly managed, Dr. Roberts reopened the mural wound, secured the bleeding vessels with carbolized catgut ligatures, stitched the openings in the gut more thoroughly, washed out the peritoneal cavity with hot carbolized water, and closed the abdominal wound with deep sutures, completing the dressing by inserting a drainage-

[1] Gross's Surgery, vol. ii. p. 613, Sixth Edition.

[1] An Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines, p. 341, Louisville, 1843.

tube in the lower angle of the wound. Under this treatment with proper subsequent care the man made a rapid recovery. Had the dressing originally applied been allowed to remain, death would have been inevitable; either from hemorrhage, peritonitis, or peritonitis and septicæmia.[1] The case affords a happy exemplification of hasty, careless, slovenly surgery, on the one hand, and of thoughtful, wide-awake, scientific surgery on the other.

The therapeutics after all such lesions is sufficiently simple. The great point is to prevent peritonitis, or to combat it, if it takes place. The posture should be such as to relax thoroughly the abdominal muscles. The bowels should be locked up with opium to prevent peristaltic action, and nothing but iced water or pounded ice, aided, if there be much gastric distress, by a small allowance of dry champagne, should be permitted during the first three or four days. Oppression from gas should be relieved with injections of turpentine and asafœtida. Peritonitis should be met with leeching, followed by vesication with cantharidal collodion, and full doses of opium; venesection will be proper when the patient is young and robust. A laxative of castor oil, or of sulphate of magnesium, may be given at the end of five or six days, if there be marked suffering from tympanites. The urine should be drawn off during the first few days with the catheter.

I have, thus far, said nothing of gunshot wounds of the intestines. Such wounds are generally of a very serious nature, and are, therefore, liable to be followed by the worst consequences. In the first place, they are nearly always concealed wounds, from the fact that there is no prolapse of the bowel; secondly, such wounds are commonly multiple, as in one of my own cases, in which there were as many as eight perforations—two in the ileum, two in the jejunum, two in the duodenum, and two in the arch of the colon; thirdly, there is always more or less copious effusion of fecal matter; fourthly, great shock, to say nothing of hemorrhage, nearly always attends; and, lastly, most patients who survive the more immediate effects of such injuries are almost certain to succumb to peritonitis. The only rational treatment in such cases is to expose at once, or with the least possible delay, the peritoneal cavity, to stitch up, or excise, the wounded bowel, and, lastly, to clear away all extraneous matter. Excision of the tube is imperatively demanded when the wound is very large, severely contused, or very ragged. Nothing short of this would answer under such desperate circumstances; and even then no sensible surgeon would venture to pronounce a favorable prognosis.

It was my purpose, in connection with this paper, to offer some remarks on excision of the intestine in gangrene from strangulation in hernia; but it has already so far exceeded the limit originally assigned to it that I must confine myself to a few passing sentences.

The first operation that was ever performed for such an object occurred in the hands of Ramdohr, a German surgeon, who flourished in the early part of the last century. His patient was a woman, the subject of a strangulated femoral hernia, and, although fully two feet of her small intestine were removed, complete recovery ensued. This remarkable case remained for a long time a solitary illustration of the manner in which a man, inspired by genius and the gift of prevision, may project himself into the future far in advance of his plodding contemporaries. Towards the close of the last century, and the beginning of the present, operations of this kind became more frequent, chiefly through the labors and writings of Sir Benjamin Travers and Sir Astley Cooper, of London; Duverger, Boyer, and Lavielle, of France; and Schmidt and Dieffenbach, of Germany. In this country, the first case of the kind occurred in the practice of the late Dr. Charles Luzenberg, of New Orleans, in 1846. The case was one of strangulated inguinal hernia, in which that distinguished surgeon, on the basis of the recommendation contained in my monograph on wounds of the intestines, excised six inches of the ileum, and succeeded in curing his patient. Operations of this kind, dating from these humble and uncertain beginnings, now justly rank among the established resources of surgery. In an article published in THE MEDICAL NEWS for March 15, 1884, Prof. S. W. Gross refers to 67 cases of this kind, in the hands of different surgeons, nearly all European, of which 21 made complete recoveries, 2 escaped death with an artificial anus, and 44, or 65 per cent., perished. This remarkable mortality seems to have been due, not, as one might, *a priori*, have supposed, to peritonitis, but to the unsound condition of the bowel beyond the seat of the gangrene, a fact of great practical value, and one that should not be lost sight of in operations undertaken for this purpose.

[1] American Practitioner, January, 1884.

TREATMENT OF SUBCHRONIC DIARRHŒA BY THE USE OF UNCOOKED, FULLY RIPE, FRESH FRUIT.

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IT is well known that many sufferers in Southern Europe annually await the season of the vintage as an expected cure for various disorders of health. This expectation is doubtless based upon experience and observation of the masses of the people, and it is also supported by the opinions of many eminent physicians. Dr. Warren Stone, the distinguished surgeon of New Orleans, once said that one of the greatest blessings that could come to the people of our country would be the general cultivation and use of subacid fruits.

Without some special knowledge of the effects of these subacid fruits, and of the maladies in which they are of service, we are liable to use them when we ought to avoid them, and to avoid them when we ought to use them. As a contribution to such special knowledge, I present here a history of two cases of subchronic diarrhœa, from which I took the hint for a number of cases that I have since treated and

have had treated by the dietetic use of fully ripe, but uncooked, fresh apples or cling-stone peaches. I mention apples and cling-stone peaches, because they were the fruits successfully employed by me. Perhaps some other, or many other fruits, may answer, but the *soft*- or free-stone peach, when tried by me, acted upon the bowels as a laxative, and did not do for the treatment of diarrhœa.

CASE I.—A man of sedentary occupation in Dallas County, Alabama, aged twenty-nine years, had an attack of dysentery (epidemic), which went off very reluctantly after a number of slight relapses, and left the man emaciated, debilitated, and with a digestion so impaired and bowels so irritable that various diets to which he resorted all failed to suit him, and all alike seemed to excite frequent, painful, but not copious or bloody, evacuations. This condition persisted for some weeks, when, about the early half of July, he went with a party of friends to Conecuh County, under the hope that a different water, a different air, and a difference of surroundings with rest and freedom from the cares and exertions of business, might be of value to him.

The first week passed in the new locality made no change in the symptoms, and the patient resolved to take nothing but tea for breakfast and supper and a saucer of soft peaches for dinner. Under this treatment the bowels became, at once, more active, and the actions more copious. Supper was then entirely abstained from, and the soft peaches with a little clarified sugar added were the only thing taken for dinner. The case made no improvement, and the patient, abstaining almost entirely from both food and water for a day or two, walked about in the groves surrounding the beautiful country residence where he was stopping, in very great discouragement and thoughtful as to what more he could do for himself. In one of these walks he climbed a fence to walk through an orchard adjoining and found many acres in peach trees, the trees being weighed down and the ground beneath them strewn with peaches, many of which were fully ripe, and many also passing into fermentation and decay. As the weather was dry and the sun hot, many of the cling-stone peaches, both on the trees and on the ground, had become extremely ripe and sweet, somewhat wilted in feel, and on one side discolored and toughened as if somewhat suncooked. These, beside having no sourness at all, but only a pleasant subacidity, had a peculiarly mild and mature sweetness, which was grateful but not cloying, and had acquired a flavor suggestive of brandy. The patient, not dreaming of benefit, but under the temptation of appetite and the recklessness of despondency, selected one or two of the most mellow of the cling-stone peaches, and after thoroughly masticating them, swallowed the juice and pulp. He experienced no harm from the venture, and, thinking the matter over, determined to take nothing at all at the table, and to confine himself for a while to a cautious use of these almost dry-ripe cling-stone peaches. This he did, to the exclusion even of water itself. His bowels gave him no more trouble, and after about two weeks' restriction to the cling-stone peaches alone, he gradually returned to other articles of food, and, without a single dose of other curative, recovered his flesh and strength with all the other comforts of health.

CASE II.—In 1857, in Camden, Alabama, a man about thirty-five years of age had malarial trouble, for which he took sulphate of quinine very freely, and with satisfactory results, so far as the objects for which he took it were concerned, but the quinine seemed to irritate his bowels—at least these acted as though by some purgative every time he resorted to the free use of quinine. The result was that from about an hour before dawn until about ten o'clock A.M., every day, he would have from four to ten painful evacuations, not copious, or serous, or very exhausting, but very annoying on account of the great pain. This resided in the descending colon and rectum, paramountly in the sigmoid flexures and vicinity. The trouble resisted opiates, opiates with salines combined, bismuth, vegetable astringents, and such other modes of treatment as are most frequently productive of good in such cases. The most stringent rules of diet were most self-denyingly submitted to, but days ran into weeks, and weeks were running towards months, with no satisfactory improvement of condition, when one day the patient, hungering and thirsting and low-spirited, passed along the sidewalk by a window that was piled up with blushing western apples, whose ripe fragrance perfumed the neighboring air for some distance around. He resisted the temptation and passed on, under the impression that the apples would be bad for his case. Day after day he suffered the same way and passed the same window and successfully resisted the same temptation. At length, finding no change for the better, from regimen or medicine, either or both, and being on a rigid fast and in a half-desperate mood, he halted at the store, procured three of the finest and ripest of the apples, and then went on. Two of these apples he put into his pocket to await the effect of the other, of which he scraped a part with his knife and swallowed the scrapings, both juice and pulp. This partially allayed his hunger and partially quenched his thirst, and as his bowels suffered no harm, he took the remainder of the first apple as his exclusive food and drink for the rest of that day. The next morning brought no pain with it, and no action occurred from the bowels. The two remaining apples were used in the same way as the first, and constituted the sole food and drink of the forenoon of the following day. A half-dozen apples were taken as the food and drink of the third day of the treatment, and for a week or two nothing at all but mellow, choice apples, thoroughly masticated, were taken. There was no more pain or looseness of the bowels, and the convalescence was uninterrupted and complete.

These two cases, thus given at length, render it unnecessary to furnish details or even abstracts of many other cases of subchronic diarrhœa similarly and successfully treated; and, regarding them as fairly typical, I urge the importance of thoroughly ripe subacid fruits, not only as a remedy for similar troubles among the residents of tropical and subtropical regions, but also as an important factor

in diet in health, conducive to the prevention of such maladies by the correction of any scorbutic tendency in blood or tissue which may underlie these and other like maladies.

MEDICAL PROGRESS.

THE ETIOLOGY OF JEQUIRITY OPHTHALMIA.—As is well known, says E. KLEIN, of London, Sattler and De Wecker have stated that infusion of jequirity causes ophthalmia, by the presence of a bacillus and its spores. He has recently made observations on this subject which lead him to contradict this statement. The jequirity seed were deprived of the perisperm, powdered, and then an infusion placed in a retort sterilized by heat, containing boiled distilled water, and sealed with sterilized cotton. This was a one-half per cent. solution, as used by Sattler. The infusion was made with lukewarm water. After half an hour the infusion was filtered into a sterilized flask through a clean, heated filter. From this filtrate a small quantity was removed by means of a capillary tube, and four flasks, containing sterilized peptone-solution, were inoculated. By means of the same capillary tube the conjunctivæ of four rabbits were inoculated. The inoculated flasks were placed in ovens and kept at a temperature of 35° C. After twenty-four hours, the rabbits showed the typical intense ophthalmia, while the flasks were perfectly clear, there being no trace of cloudiness; furthermore, the inoculation of new cultures and microscopic examination showed no microorganisms of any kind.

A second and third series of experiments gave the same results, and Klein says that he is forced to the conclusions that Sattler's statement that the jequirity infusion owes its action to the presence of a bacillus is untenable; that Sattler must have used much stronger infusions than he; that he used infusions which had been kept for several days; and that he inoculated the eyes with bacilli when these old infusions were used.—*Centralbl. f. d. med. Wissensch.*, February 23, and March 15, 1884.

NAPHTHALIN IN THE TREATMENT OF WOUNDS.—In the *Vratch*, 1882, No. 39, and 1883, No. 2, DR. P. T. DIAKONOFF, of Orel Zemsky Hospital, publishes eighty cases of wounds, abscess-cavities, and ulcers, in which he used naphthalin as an antiseptic, in the form of medicated wool, gauze, or jute, or crystals, powder, ointment, or rods made of equal parts of the drug and gelatine or cacao butter. The results obtained by the author are decidedly favorable to the new antiseptic. The advantages claimed by him for naphthalin are its cheapness, harmlessness, and the ease of application. Of its drawbacks he mentions only two: 1. Naphthalin dressing in some cases gives rise to severe pain. 2. It does not prevent the appearance of erysipelas. The author never saw any formation of crusts, or occurrence of eczema, and other signs of local irritation, or hemorrhage, after the use of naphthalin, of which Drs. Hoeftmann (*Centralbl. für Chirurgie*, 1882, No. 72) and Hager (*Ibid.*, No. 50) complain.

DR. V. LINDENBAUM, of Jaroslavl (*Vratch*, 1883, No. 17), has used naphthalin in nearly fifty cases of frostbite, the toes and fingers being mostly the parts affected. In many cases extensive, freely suppurating, sloughing ulcers were present. The method after which the cases were treated was simple. First, the affected parts were washed with a carbolic solution (3 to 5 per cent.); then they were covered with a thin layer of pure crystallized naphthalin (*naphthalinum albissimum*), over which a large piece of soft carbolic gauze was laid; then a few cakes of resinized tow followed; lastly, a thin sheet of waxed paper was placed, and the whole fixed and compressed by a starched gauze bandage, or, for the sake of cheapness, by narrow strips of adhesive plaster. The dressing was changed, as a rule, every seven or ten days, and only in cases of profuse suppuration every four days. Healing generally progressed very rapidly. The author never saw any untoward symptoms, except slight pricking pain during the first two or three hours after powdering, and slight hemorrhages from granulations. Wounds ran their course without any rise of temperature.—*London Medical Record*, March, 1884.

SIMULTANEOUS LIGATURE OF THE SUBCLAVIAN AND COMMON CAROTID ARTERIES FOR INNOMINATE ANEURISM; RECOVERY.—DR. JULIUS ROSENSTERN reports the case of a woman, æt. 42 years, who, about two and a half years ago, began to experience pains in the upper part of the chest, and extending into both arms. In July, 1883, a pulsating swelling was noticed on the right side of her neck, and has since increased. The symptoms were those of aneurism of the innominate artery.

On November 26th the right common carotid and subclavian arteries were ligated, two ligatures being placed upon each. The wounds were irrigated with a four per cent. solution of carbolic acid, filled with iodoform gauze, then sewed up with the exception of a small opening for the passage of the ligatures and an iodoformized drainage-tube. The whole was covered with an iodoform wadding bandage, the head drawn over to the right side with triangular cloths, and the right arm firmly bandaged to the thorax. The bed was elevated at the foot to facilitate drainage and guard against a congestive abscess in the mediastinum.

The first bandage was changed on the seventh day after the operation, the iodoform gauze removed, the wounds iodoformized and compressed with iodoform wadding bandage. The sutures were removed on the fourteenth day. The edges had united by first intention, with the exception of the space occupied by the drainage-tubes, which were also taken out at the same time. The temperature only rose once to 102°. The pulse was at first 100, and very strong, but gradually came down to 80. One ligature of the carotid came away on December 24th, the other eight days later. The ligatures of the subclavian came away toward the end of February. The right radial pulse reappeared on January 2d, but is still very much weaker than on the other side. The pulse in the right temporal artery cannot yet be felt.

On the 1st of January she left the bed for the first time, and went home on the 8th. Since the day after the operation the pains and difficulty of breathing have not returned. The tumor, though considerably diminished, has not entirely disappeared.—*Pacific Med. and Surg. Journ.*, March, 1884.

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SATURDAY, MAY 3, 1884.

THE MODERN CURE OF HYDROCELE.

In the *Wiener medizinische Wochenschrift*, Nos. 1, 2, 3, and 4, 1884, may be found a contribution to "The Final Results of Radical Operations for Hydrocele," from the pen of DR. OTTO WEISS, which is mainly interesting from the fact that it gives the experience of Billroth with the injection of iodine in 166 cases, in 5 of which suppuration, demanding free incision, ensued, and in 6 the affection was known to have recurred. In addition to this paper, JULLIARD, of Geneva, describes his modified operation of antiseptic incision of the sac in the *Revue de Chirurgie*, No. 2, 1884. From these contributions, as well as from information derived from public and private sources in our possession, we have gleaned some facts which will doubtless prove of interest to our readers, as they throw new light upon the relative merits and disadvantages of the most popular methods of treating hydrocele.

Of the curative measures, the one that is most frequently resorted to is the injection of tincture of iodine, either pure or diluted with an equal weight of water, or in the form of Lugol's solution. Unless we greatly mistake, the profession is inclined to regard this operation as being absolutely safe, and certain in its results, despite the fact that there are not a few isolated examples of death following its employment, to say nothing of the occurrence of shock, severe pain, undue inflammation, and gangrene of the scrotum, even in the hands of experienced surgeons. That the failures have been underestimated, and that some of its risks are not sufficiently well appreciated, becomes apparent from an analysis of 523 cases which we have collated from the practice of Billroth, Esmarch, Kocher, Volkmann, Krabbel, Jacobson, Osborn, and Abbe. Of the entire number, the disease recurred in 44, or 8.4 per cent., while acute suppuration supervened in 5, or 0.95 per cent.—2 after the use of equal parts of the agent and water, and 3 after the injection of the compound tincture. It may be remarked that the failures are as common after the injection of one solution as another, and that about three weeks are required to effect a cure.

Within the past decade, the treatment of hydrocele by antiseptic incision has been much practised, particularly in Germany. In this operation, to which the name of Volkmann is attached, the scrotal tissues are freely divided, under the spray, down to the vaginal tunic; bleeding vessels are secured; the sac is opened by an incision of similar length, and syringed out with a three per cent. solution of carbolic acid, when the edges of the serous membrane and external wound are united with catgut sutures, a short drainage-tube being inserted at the most dependent portion of the cut, and the parts firmly occluded and compressed by carbolized gauze and bandages.

The advocates of this method declare that it is absolutely safe, certain, and rarely attended with surgical fever; but their positive statements are not sustained by an examination of 254 cases, recorded by Volkmann, Kuester, Weir, Englisch, Albert, Lister, and Jacobson, Of this number, not only did the fluid reaccumulate in 3, or 1.18 per cent., but 2 patients, or 0.79 per cent., died, respectively, of septicæmia and pyæmia. In addition to these evils, carbolic acid erythema, abscess in the connective tissue, and partial sloughing of the edges of the wound have not infrequently been observed, and orchitis has now and then been met with. Although a cure is secured in about ten days, the parts remain tender, hard, and swollen for about three weeks in the majority of cases, so that the subject really does not move about with comfort for one month. It should be noted that the advocates of the operation have referred the tenderness and tumefaction to the plastic infiltration of the vaginal tunic, through which the obliteration of the cavity is secured, while its opponents have ascribed it to orchitis and epididymitis. That neither of these views is correct, is shown by a case recorded by Kraske, in the *Centralblatt für Chirurgie*, No. 47, 1881, in which death ensued on the tenth day from intercurrent pneumonia. There was no lesion whatever of the organs referred to; but the swelling was due to a clot of blood undergoing connective-tissue substitution, or so-called organization, at its periphery. The result of this examination led, in the succeeding thirty-one cases in Volkmann's clinic, to the careful securing of all vessels, so that the tumefaction was reduced to a minimum in the ma-

jority and was entirely absent in a few. In a second case of death from internal strangulation of the intestine on the tenth day, Julliard was enabled to confirm the statement of Kraske.

The operation of Volkmann has been variously modified, with the view to dispense with a large incision and shorten the duration of the treatment. Thus, Volkmann himself, Reyher, Trendelenburg, and Weir made a small puncture or incision, washed out the cavity with a carbolic acid solution, and inserted a small drainage-tube. The disadvantage of this procedure is that the small opening may close after the removal of the drain, before firm adhesions have taken place, through which there will be danger of recurrence, as happened in 1 of the 19 cases in which it has been resorted to. Jacobson, in 3 successful cases, opened the sac by a cut about two inches long, and excited the formation of granulations by inserting a narrow strip of gauze soaked in carbolized oil. Finally, Julliard incises the sac freely; removes with the scissors or spoon any pathological products which may exist on the vaginal tunic, the testicle, or the epididymis; ties all bleeding vessels; resects the vaginal tunic, so as to leave enough to cover the testicle and the cord; unites the edges of the tunic with catgut sutures; inserts a rubber drainage-tube in the lowermost portion of the external wound, and closes the latter with catgut. Of his 54 cases, there was recurrence in 1, which was probably due to the irritation produced by the decalcified bone drain, which was found, at the end of fifteen months, to have undergone no change whatever, and 1 patient died of internal strangulation in ten days. Hence, of 330 examples of antiseptic incision of the sac, there were 2 deaths, a mortality of 0.6 per cent., and 5 recurrences, or a percentage of 1.5. These disadvantages and risks are offset by the short time required to effect a cure, although the parts remain swollen and tender for about three weeks.

Antiseptic incision has materially increased our knowledge of the changes which occur in the sac and its contained organs. Thus, in the 54 cases recorded by Julliard, and in 69 reported by Genzmer, from Volkmann's clinic, in the *Sammlung klinischer Vorträge*, No. 135, or in a total of 123, cysts were found on the vaginal tunic, the testicle, or the epididymis in 43, the testicle and epididymis were enlarged in 23, the vaginal tunic was thickened in 54, false membranes were present in 26, and free or attached foreign bodies were met with in 3. These abnormal products are regarded by some teachers as being the cause of recurrence after the treatment by injection; but we are of the opinion that they indicate merely that disturbances in the secretory apparatus of the male genital organs occasion hydrocele as well as the lesion referred to.

For the past three years, Dr. Levis has resorted to the injection of from thirty to sixty grains of the deliquesced crystals of carbolic acid into the sac, but with what results we are not informed, save in the general statement that the treatment has been almost uniformly successful. The method is certainly painless, is not productive of shock, involves no trouble, and is speedily carried out. The patient need not keep his bed longer than a few days, but the swelling does not disappear, on an average, before the expiration of one month. Of 82 cases, in the hands of Weir and Abbe, suppuration occurred in 3, in one of which the sac sloughed; but the amount of the agent used—from two to three drachms—was too large. In a fourth case, the sac rapidly filled with bloody serum, which had to be let out. These drawbacks may be met with even when a small quantity of the remedy is employed. Thus, in two cases under our own care, the injection of one drachm was followed by a large effusion of blood into the sac, an accident which is doubtless due to the separation of the endothelium and the rupture of the underlying vessels of the vascular connective tissue. Suppuration ensued in a case recently treated with twelve minims by Abbe, and in one, now in the Jefferson Medical College Hospital, from the injection of half a drachm. No death has as yet been recorded; nor has recurrence or carbolic acid absorption been observed.

An analysis of the facts contained in the preceding paragraphs warrants the conclusion that antiseptic incision of the sac is too severe for ordinary cases, and that it should be reserved for those in which the vaginal tunic is much thickened, and for examples of recurrence after the employment of simpler methods. Although the injection of from thirty to sixty grains of liquefied carbolic acid, as a curative measure, has not as yet been sufficiently tested, we think that we are justified in predicting that it will prove to be the simplest, safest, and least inconvenient of all the measures heretofore employed for the cure of the very common affection under consideration.

THE STAINING OF KOCH'S BACILLI.

So much has been written and printed since Koch's original publication, upon the treatment of tubercle-bacilli with a view to their better and easier demonstration, that a systematic article by FRAENKEL, published in full in the *Berliner klin. Wochenschrift* for March 31, will be welcomed by physicians, especially as the methods are intended to be employed in the office rather than in laboratories.

In general, it may be said of the bacillus tuberculosis that it imbibes only certain aniline coloring matters; that a certain period of exposure is necessary; and that it must be treated by certain additional fluids to secure the most distinct demonstrations.

After a comparative trial of twenty aniline colors, Fränkel concludes, with other investigators, that the best are, undoubtedly, methyl-violet and fuchsin. Both of these are hydrochloric acid combinations, and both stain animal fibres more easily than vegetable. As to the time required for staining, ten minutes are necessary at the temperature of the room, although a much shorter time suffices in the warm box, while Rindfleisch has also shown that by warming the fluid the staining may be made instantaneously.

With the added fluids, Fränkel found the aniline water, as first suggested by Ehrlich, to give the best results, although equally good results were obtained with toludin water, an analogous substance which is always found to accompany the commercial aniline as an impurity. A durable fluid is composed of 93 c.c. of water, 3 c.c. of aniline oil, and 6 c.c. of alcohol. In this aniline water the coloring matters may be dissolved, but it is better to have on hand alcoholic solutions of fuchsin and methyl-violet, and before using to add, by means of a dropper, as Ehrlich originally suggested, as much of the solution of coloring matter as will produce a decided opalescence in the fluid. Five cubic centimetres of aniline water are heated to boiling in a test-tube, poured into a watch-glass, and the concentrated solution of coloring matter added. Upon this the covering-glass, on which the sputum is smeared, and dried by passing it a few times over the flame of an alcohol lamp, is floated for from two to five minutes.

In order to demonstrate the bacillus more distinctly, acids, alcohol, and watery solutions of other aniline colors are used, either to decolorize the other elements of the sputum, cells, nuclei, other fungi, or foreign substances, or so to stain them by these colors as to put them in contrast with the stained bacilli. For this purpose Ehrlich uses nitric acid diluted three times; Petri, glacial acetic acid; Rindfleisch, feebly acidulated alcohol; and Koch, in the beginning, vesuvin-solution.

Fränkel regards it as especially important to restain the decolorized preparation, thereby eliminating all possibility of mistake. For this purpose he has recently used a mixture of 50 parts of alcohol, 30 of water, and 20 of nitric acid, which is saturated with ethyline-blue and then filtered. Into some of this fluid the preparation is carried directly from the first color solution, and in this way the decolorization and second staining are at once accomplished, an immersion of one minute sufficing. The sputum on the cover-glass is then washed in water or in 50 per cent. of alcohol acidulated with one per cent. of acetic acid, and well dried by first compressing between filtering paper, and then quickly passing through a flame. In this way, says Fränkel, a preparation can be completely made and doubly stained in four minutes.

Baumgarten's method of demonstrating the bacillus unstained is less satisfactory. By Gibbes's method of staining the bacilli red and the background blue, by a single fluid, Fränkel thinks fewer bacilli are brought out than by the one detailed.

As to the use of an immersion system and Abbe's illuminator, Fränkel says much time is saved by them, but that with a good Hartnack No. 7, or any corresponding power, and ordinary illumination, the bacilli are easily recognized.

BATTEY'S OPERATION.

THIS operation was recently discussed in the Société de Chirurgie of Paris. POZZI narrated the case of a patient who had a tumor of the left ovary as large as an adult head, and who was bed-ridden for five years. She had left hemianæsthesia and hemiparesis; the left eye was amaurotic, and she had erotic nervous attacks each night. Removal of the tumor effected a perfect cure. In the discussion of the subject, Terrier took the ground that Battey's operation was indicated in cases of obstinate hysteria if the ovaries were painful, at the same time mentioning that very grave hysteria had developed in one case upon whom he had performed ovariotomy, the subject having previously been quite free from the disorder. Gillette, on the other hand, thought Battey's operation a bad one, and not founded upon reason. Nevertheless, the general tone of the discussion was favorable to the operation—a just compliment thus paid our distinguished countryman by those who make no haste to discover merit on this side of the ocean, or, indeed, outside of France.

EXTIRPATION OF THE LUNG.

AMONG the novel experiments recently tried in Italy, the extirpation of the whole, or a part, of the lung seems the most remarkable. Fifty-seven animals—sheep, dogs, cats, and others were the subjects—had an entire lung extirpated, and thirty-five recovered. In twenty-three cases the right lung was removed, and twelve recovered; the left lung was taken away in thirty-four, and there were eighteen recoveries. There were three cases of removal of the upper part of a lung, and one each of removal of the middle and of the lower lobe; all recovered. It is very doubtful if these experiments will ever be imitated, on an extended scale, in human beings. Professor Krönlein, of Zürich, however, in a case of recurring round-celled sarcoma of the sixth rib, recorded in the *Berliner klinische Wochens.*, of March 3, 1884, not only removed a large portion of the wall of the thorax, including the costal pleura, but also resected a portion of the lung, which was the seat of a secondary sarcomatous mass. The insignificant bleeding from the lung stopped after bringing the edges of the wound together with catgut sutures. In one month the patient was discharged cured.

SOCIETY PROCEEDINGS.

THE MEDICAL ASSOCIATION OF GEORGIA.

Thirty-fifth Annual Session, held at Macon, April 16, 17, and 18, 1884.

(Specially reported for THE MEDICAL NEWS.)

THE thirty-fifth annual session of the Medical Association of Georgia convened in the city of Macon April 16, and continued in session three days.

FIRST DAY.

The Association was called to order by the retiring PRESIDENT, DR. K. P. MOORE, of Macon. After prayer by Rev. A. J. Battle, D.D., Dr. Wm. F. Holt, of Macon, in a neat address, welcomed the Association to the city. This address was responded to by Dr. L. B. Alexander, of Forsyth. The PRESIDENT-ELECT, DR. A. W. CALHOUN, of Atlanta, was then introduced, and delivered

THE ANNUAL ADDRESS.

He said: My subject—*School Hygiene in Relation to its Influence upon the Vision of Children*, or school sanitation—does not express the full scope of this discourse, but is a faint outline of what I shall have to say to you in the time allotted to me.

The medical aspects of life are deservedly attracting more and more the attention of doctors in every land where education and civilization have made much progress. The researches of one investigator developed the fact that out of more than 2300 infants examined by him, only 122 possessed abnormal peculiarities of any kind, and from this fact drew the conclusion that, when they start to school, children, as a rule, are physically sound. That deformities of one organ or another, simple or serious, do exist amongst school-children, admits of no argument, and many of these may be reasonably attributed to the influences surrounding a child during its life in the school-room. The various parts of the organism of youth are easily disarranged, and if the cause operates continuously, the disarrangement is liable to become permanent.

Before the child even sees the inside of a school-room, he learns many useful things—often more than he does in the next succeeding five years, and yet this learning does not injure his eyes. It is a fact that children, at the time of entering school, are free from that common affection, near-sightedness, but almost immediately thereafter the disease begins to show itself. This is conclusive evidence that the fault, to a great degree, at least, lies in the school.

For many years, deterioration of the eyes among pupils in public and private schools has been a topic of complaint and investigation both in this country and the older nations of the world. This impairment of sight, this deterioration of the eye, is principally the immediate results of myopia, or near-sightedness, which, in its turn, is caused by defective modes of education and their hurtful surroundings.

After entering minutely into myopia and its causes, Dr. Calhoun said in reference to its treatment: Prevention is the sole resource at our command; restoration is impossible; and in order that preventive measures may be seasonably adopted, it is first necessary that the profession and the public should become alive to the fact that in a large number of cases myopia is one of the gravest affections of the eye, capable of limitation by constant care during childhood and youth; but, if not thus limited, likely to be a source of future disability and misery, and to be handed down as an onerous inheritance to children. After referring to the fact that the disease myopia was unknown in the negro in the South in *ante-bellum* days, and showing from statistics that education had produced the disease in a great number of them recently, he closed with the following sound words of advice: Fewer hours of study, and more rational methods of teaching; less cramming of mere memory, and more healthy development of the intellect, will make brighter, healthier, and more intelligent students, who will develop into stronger, hardier, and more energetic men and women. For such as these the practical affairs of life offer many and varied fields of usefulness, while for the sallow-faced, narrow-chested, weak-eyed bookworm there is no room in a busy world.

DR. JAMES P. LOGAN, of Atlanta, Chairman of the

COMMITTEE ON AN INEBRIATE ASYLUM,

reported that every effort had been made to have the legislature pass an act providing funds for the establishment of such an institution, but without avail. He said he was satisfied that it was impossible to induce them to do anything in the matter, and asked that the committee be discharged. The request was granted.

DR. H. V. M. MILLER, Chairman of the

COMMITTEE ON EXPERT TESTIMONY,

said it was difficult to get the legislature to understand that a law providing proper compensation for medical experts was not "class legislation." He had proposed and had presented to that body a bill, but could get no one to advocate it. He suggested that the committee be continued, and that a bill be proposed providing for the payment of all experts: not only medical experts, but experts of every class called into court to testify, and that they be compensated as the judge trying the cause might determine. On motion, the committee was continued.

DR. MILLER, Chairman of the

COMMITTEE ON ANATOMICAL MATERIAL,

reported that a bill had been prepared and presented to the legislature and passed both houses, but was vetoed by the Governor after the adjournment of the legislature. The Governor had never published any reasons for this veto, but he had been informed that it was done on account of the short time allowed in which strangers dying in the State should be held before being delivered to the medical colleges. The bill provided for twenty-four hours only. He further stated that he thought with that objectionable feature of the bill removed, it might yet become a law. The committee was continued, and instructed to use every effort to obtain a law providing dissecting material for the colleges.

DR. EUGENE FOSTER, of Augusta, Chairman of

THE COMMITTEE ON NECROLOGY,

presented touching and beautiful memorial tributes on the lives and characters of Drs. E. H. W. Hunter, of

Louisville, Sterling Eve, of Augusta, J. M. Carlton, of Athens, Alexander Means, of Oxford, and L. D. Ford, of Augusta. The tribute to Dr. Ford was specially feeling and earnest, and was received with the most profound attention and reverence by the Association. Dr. Ford was the first President of the Association, he having been elected in 1849, at the organization.

THE COMMITTEE ON PRIZE ESSAYS

in their report stated that a number of essays had been submitted, but none was found worthy of a prize. The committee was continued.

Reports of sections from the several congressional districts were then secured.

SECOND DAY.

The Association was called to order by the President, Dr. A. W. Calhoun, at 10 o'clock A.M.

REPORTS.

The annual reports of the Treasurer and Secretary were read. They showed the finances of the Association to be in a good condition.

Under the call for voluntary contributions, a large number of papers were read by title, to be subsequently called up and read at the pleasure of the Association.

Only a few of these papers were read; they were all referred to the Committee on Publication, and will, no doubt, appear in the *Transactions* of the Association.

THIRD DAY.

The Association was called to order at 10 o'clock A. M. The entire morning session was taken up with the reading of voluntary contributions reported by title the previous day. Two of these papers deserve special notice, the one on *Consumption* by Dr. Miller, and the one on *Explanation of the Pathology and Therapeutics of the Nerve-centres*, by Dr. Gaston.

THE PRESIDENT appointed Dr. Jas. B. Baird, of Atlanta, *Orator* for the next year. He also announced the following

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION:

Drs. Eugene Foster, H. F. Campbell, A. G. Whitehead, Jas. P. Logan, G. W. Mulligan, H. McHatton, B. R. Daston, De S. Ford, W. H. Doughty, Sr., W. F. Westmoreland, V. H. Taliaferro, W. O'Daniel, K. P. Moore, A. J. Logan, C. D. Smith, T. O. Powell, R. J. Nunn, T. J. Charlton, Robt. Battey, W. B. Wells, John Gerdine, E. Fitzgerald, M. G. Hatch, W. P. Nicolson, P. L. Hilsman, J. C. Solomon, Jas. A. Gray, S. B. Hawkins, G. G. Crawford, T. M. McIntosh, E. C. Goodrich, T. R. Wright, C. H. Hall, and A. W. Calhoun.

On motion, the President's name was added.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Eugene Foster, M.D., of Augusta.

Vice-Presidents.—Drs. J. B. Roberts, of Sandersville; and W. D. Bozzell, of Atlanta.

Secretary.—Dr. James A. Gray, of Atlanta.

Treasurer.—Dr. E. C. Goodrich, of Augusta.

The next meeting will be held in Savannah, on the third Wednesday in April, 1885.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Eighty-sixth Annual Meeting, held in Baltimore, April 22, 23, 24, and 25, 1884.

(Specially reported for THE MEDICAL NEWS.)

THURSDAY, APRIL 24—THIRD DAY.

DR. J. W. CHAMBERS read a report of

FOUR CASES OF ABSCESS OF THE BRAIN.

In the first two cases, the abscesses were caused by external injuries; the patients died forty-six and thirty-one days, respectively, after the accidents. These cases, and especially the second, were interesting from the fact that in neither of them was there any evidence at the autopsy of depression or fissuring in the skulls—apparently the lesion was the result of a necrotic periostitis following contusion of the bone at the point against which the missile impinged. Dr. Chambers said that he had searched all the literature accessible to him without finding a similar injury to the bone recorded. It seemed to him impossible that a contusion (rupture of capillaries, and, possibly, laceration of brain substance) could be produced in the white matter of the brain without a similar injury to the cortical substance, but he suggested that probably the contusion in the cortical substance might be entirely recovered from, whilst in the white substance the comparative paucity of vascular distribution renders the repair of such an injury much more difficult. The two remaining cases were not caused by any external injury; one was due to embolism, and the other was probably idiopathic.

DR. JOSEPH T. SMITH then read a paper entitled

THE PAST YEAR IN PATHOLOGY,

in which he entered very fully into the recent developments, taking up specially the germ theory. He dwelt largely upon the results of the work of the French and of the German Cholera Commissions—results which, though by no means all that is needed on the subject, have gone far toward the desired goal. Dr. Smith discussed the bacillus of tuberculosis, and entered somewhat into detail on the subject of the various controversies now being carried on on the subject, quoting from authorities on the opposing sides. He then gave the results of the investigations carried on at the Brompton Hospital, London. He concluded his remarks in this connection as follows: "It is more than probable, then, that the bacillus will be shown to be a veritable microörganism; that it will be of value as a diagnostic, and possibly as a prognostic agent; but, while it may be active in the production of phthisis, something more is required, and that not it alone is responsible for phthisis" (referring to individual susceptibility).

DR. FRANK DONALDSON then read a paper on

THE INFLUENCE OF LUNG RETRACTILITY IN PLEURISY AND PNEUMOTHORAX.

He said that it is strange how observers have neglected to apply the knowledge gained by physiological research of the retractile force of the lungs to the investigation of the pathological conditions of the chest. This neglect has had a very considerable effect in retarding our progress in the thorough study of the diseases of the

chest. He proceeded in detail to consider the various contributions towards a correct estimate of the subject treated of in his paper by Marcy, Hutchinson, Hyde, Salter, Powell, and Le Gros Clarke, who had all, in some degree, prepared the way for the work of Dr. W. H. Stone, of London, who in 1877 reported his experiments upon sheep, from which he concluded that the retractile power of the lung was equal to four or five inches of water. He also showed that even when the effusion was considerable in the pleural cavity, the lung still possessed contractile power enough to support two inches of water, so that to evacuate the fluid it was necessary to use external suction sufficient to overcome this lung traction. Dr. Garland, of Boston, a few months after this, gave a great impetus to the study of the dynamics of the chest in his work on *Pneumo-dynamics*. Before 1843 it was thought almost universally that the effused pleuritic fluid obeyed the law of gravity as in open vessels or in a vacuum, and hence it was assumed that the fluid maintained a horizontal level. The distinction between impaired resonance (dulness) and flatness had not yet been recognized. M. Damoissan called attention to the fact that the line of dulness when the patient is erect does not assume a horizontal line, but one more or less following the curve of a parabola.

In 1874–1876 Dr. Calvin Ellis described the upper line of the effused fluid as beginning, with medium effusion, relatively low down in the back, passing outward from the vertebral column and turning upward and proceeding obliquely across the back to the axillary region, where it reaches the highest point. Thence it advances in a straight line, but with slight descent, to the sternum. This is the Ellis or S curve. When the fluid occupies most of the chest up to the second rib, the retractile power of the lung is lost, and the fluid will approach the horizontal line. This S curve Dr. Donaldson and others have confirmed by their own observation.

Dr. Donaldson then considered the influence of the retractile lung power in the production of displacements of the adjacent organs, heart, etc., displacement of lung diaphragm and intercostal spaces of liver, spleen, and stomach, and in the production of pneumothorax.

He concludes that lung retractility is not only a powerful physiological force in respiration, but that it also produces modifications of a decided character in diseases of the chest. The practical value of these facts consists in the aid they give us in the differential diagnosis of pleurisy and pneumothorax, the assistance they afford us in measuring the quantity of fluid in the pleural cavity, and the indications they furnish us as to the advisability of resorting to thoracentesis.

PROF. G. STANLEY HALL, of the Johns Hopkins University, then delivered an address on

LOCALIZATION AND RECENT PHYSIOLOGY OF THE BRAIN.

Among the results made probable by recent methods of study are the continuity of the pyramidal fibres of the cord to the cortex through the inner capsule, without the interruption formerly supposed, in the cells of the large basal ganglia. These tracts decussate only in part, and are the tracts, at least, for the arms of volitional motor innervation. The cerebellum, whatever other function it may have, appears to be very largely a commissure between the hemispheres, particularly between the "latent" frontal and occipital regions—the projection system of the "psychic zones" lying between these. Its very intimate connection with the red nucleus of the olivary bodies, and a lateral column of spinal fibres, is now very probable. These and other results were illustrated by maps and by Aeby's brain phantom, made of colored cork and wire.

DR. A. G. HOEN, then described a simple and inexpensive method of

PHOTOGRAPHING WITH THE MICROSCOPE.

He said that tissues, as ordinarily cut and stained with carmine, are admirably adapted for photography with the low and medium powers. By placing the sensitive plate at a distance of two, three, or four feet from the objective, and using the eye-piece in conjunction with the objective, excellent results are obtained. As a means of recording microscopic observation, nothing is so absolutely true as a good photomicrograph; it is especially suited for perishable preparations, such as scrapings from tumors, etc.

The various manipulations of this process, known as the wet-plate process, were then shown as far as it was possible to do so. The character of the negatives exhibited, as also that of the prints from these, proved conclusively that good work could be done without the use of expensive apparatus. In this case the illumination of the object was effected by an ordinary mirror mounted on a movable pivot and fixed to a window-sill having a southern outlook. The use of the blue glass cell so strenuously insisted on by most authors, was found unnecessary; a ground glass, however, placed on the under side of the aperture in the stage of the microscope was indispensable, both to insure an even illumination and to render the rays of light parallel. The preparation of the plates (collodionizing and sensitizing) is so simple that anyone who has once seen the process could easily follow it. After a proper field has been secured ocularly, the instrument is placed in connection with the camera. The exposure is now made by withdrawing the dark slide from the plateholder, and according to the lenses used a longer or shorter time is given. The development, conducted in the dark-room, is secured by a solution of iron and acetic acid. The process commends itself by its extreme cheapness, $25.00 being sufficient to supply the camera, bath, dishes, etc., with all the necessary chemicals used. Another great advantage which the wet plate possesses over the dry is that a few seconds more or less underexposure does not affect it harmfully, whereas in the dry plate either one way or the other is sure to be ruinous unless in the hands of a very skilful developer.

DR. SAMUEL THEOBALD read a paper on

PREVENTABLE BLINDNESS.

He said that his experience in the treatment of diseases of the eye had led him to the conclusion that in fully fifty per cent. of the cases, blindness ensues from preventable causes. Under these circumstances no apology should be required for introducing this subject. In many instances this is due to the ignorance or criminal carelessness of parents and others; but too frequently the fault lies with the medical attendant, whose superficial knowledge of the diseases of the eye is the cause of the untoward result. *Purulent conjunctivitis of infants* probably causes more blindness than any other eye

disease, but, if judiciously treated from the beginning, it can almost always be brought to a favorable result. He recommended the use of a solution of boracic acid (gr. v–x to aq. destil. ℥j) to be dropped into the eye, and, in severer cases, a saturated solution (gr. xviij to ℥j), or nitrate of silver with the ten grain solution of boracic acid, in the proportion of gr. j–iij to ℥j. Occasionally sulphate of zinc (gr. j to ℥j), or alum (gr. ij–iij to ℥j), may be substituted for the nitrate of silver with advantage, also solution of atropia. If judicious treatment could always be applied to this one disease only, an appreciable diminution in the number of pauper blind would soon be seen.

Scrofulous ophthalmia is another fruitful source of blindness among the children of the poor, but, if propperly treated, loss of sight ought never to result. Build up the system with iron and bark, use a collyrium of sulphate of atropia (gr. i–iv to ℥j, according to the severity of symptoms) two or three times daily, and apply a bit of yellow oxide of mercury ointment (gr. j to vaseline ℥j) once a day.

Another very common cause of blindness is iritis, and yet of this affection too the same thing may be said. Too often it is neglected or mistaken for conjunctivitis with an equally unfortunate result. The liberal use of a strong solution of atropia (gr. iv–viij to ℥j) to produce as soon as possible thorough dilatation of the pupil, is the most important indication in iritis, the local abstraction of blood is frequently demanded, and constitutional treatment almost always, as there is usually a history of syphilis or rheumatism. Granular ophthalmia is another disease which destroys ten times as many eyes as it should, and chiefly for want of care in those who could by proper hygienic measures circumscribe its ranges. Sympathetic ophthalmia again annually adds largely to the blind population of our community, because of the willingness of those who have lost the sight of one eye to risk the other rather than submit to having the blind eye removed. Wherever the eye continues irritable, sensitive to the touch, and subject to recurrent attacks of inflammation, it should be removed without delay.

Glaucoma causes many more cases of blindness than it should, because its true nature is so often overlooked. It is of the greatest importance that this disease should be diagnosticated at the earliest possible moment, for in the more acute varieties the delay of a few days in the performance of iridectomy may make the difference between total blindness and complete restoration. Acute glaucoma is most apt to be mistaken for neuralgia of the fifth nerve, and chronic, non-inflammatory glaucoma is not infrequently confounded with simple cataract. Both these errors should be guarded against.

Many eyes are lost annually by those engaged in stone-cutting, etc., by their neglect of the common precaution of procuring a pair of protective spectacles.

Many other ways in which the sight is needlessly lost might be pointed out, but enough has been said to show the great importance, in the first place, that doctors generally should take more pains to familiarize themselves with those diseases of the eye which are liable to destroy the sight; and, secondly, that they should insist more strongly with their patients that it is never safe to look upon any inflammation of the eye as a trivial matter, and to impress upon them that promptness in the employment of remedies is essential, and that frequently blindness is the penalty paid for procrastination.

DR. J. J. CHISOLM read a paper on

REMOVAL OF A PIECE OF IRON FROM THE VITREOUS CHAMBER BY MEANS OF THE MAGNETIC NEEDLE.

After describing the results caused by the presence of foreign metallic bodies in the different parts of the eye, with the means usually employed for their removal, Dr. Chisolm said that whilst the properties of the magnet have been known for so long, it is remarkable that the idea of utilizing them for this purpose is only a very few years old. The first attempt to remove a foreign body from the eye with the magnet was made by Dr. McKeown, of Belfast, in 1874; but his instrument was so crude that his suggestion did not meet with favor. Five years later, Dr. Hirschberg, of Berlin, devised an appropriate magnet, and successfully removed a piece of iron from the interior of the eyeball. The needle was still further improved and perfected by Dr. E. Gruening, of New York, who has succeeded in combining the necessary properties of power and compactness. Dr. Chisolm then described a case in which he had extracted a considerable fragment of iron from the eye of a mechanic with this instrument. The patient whilst chipping off the edge of a boiler plate was violently struck in the right eye by one of the iron chips. On recovering from the first shock, he found that he had lost sight in the injured eye. Dr. Chisolm found the eye presenting the following conditions:

The anterior chamber was full of clotted blood, and only perception of light remained. There was a small wound in the lower part of the cornea. This was the only apparent injury, and the patient was of opinion that as the piece of iron must have been comparatively large it must have only struck the eye without entering it. He felt no special pain in the eye beyond a general stiffness of the lids and fulness of the eyeball. A small wound in the eyebrow was sufficient to explain the stiffness. Dr. Chisolm, however, though seeing no reason to doubt this explanation, probed the wound carefully with the smooth magnetic needle. It had not entered the blood-clot in the anterior chamber one-eighth of an inch before he felt the slight jar caused by some metallic fragment jumping towards it, and on the third attempt he drew out, through the wound, a splinter of iron half an inch long and weighing four grains. Cold-water dressing was applied, and a strong solution of atropia was instilled, and in three days the eye had cleared up and could be freely explored. The pupillary edge of the iris had been cut and the lens transfixed by the piece of iron in its passage, causing a traumatic cataract with largely ruptured capsule and leaving a ragged pupil which, however, had dilated under the atropia. In two weeks the eye gave so little trouble that the patient returned to his employment. Dr. Chisolm then described a somewhat similar case in which, however, the magnetic needle was not introduced till two weeks after the accident, and then detected nothing. Finally it was necessary to remove the eyeball, which was found to be completely disorganized in its interior. Embedded in a blood-clot, hardened by inflammatory exudation, he found a small fragment of iron, which was the cause of the injury. Probably it was too firmly embedded for the magnet to detach it.

FRIDAY, APRIL 25—FOURTH DAY.

DR. ST. GEORGE W. TEACKLE read a paper entitled

RESULTS FROM THE INVESTIGATION AND STUDY OF COWPOX,

in which he arrived at the following conclusions: 1. That cases identically similar to those from which Jenner conceived the grand idea of vaccination as a preventive and ameliorator of smallpox, and from which the first vaccination was performed, are continually occurring, especially during visitations of smallpox. 2. That in looking for a spontaneous case of cowpox independent of all contagion, atmospheric or otherwise, we are looking for something that does not exist, and did not in Edward Jenner's time. 3. That owing to the more convenient and perfect inoculation of the heifer by direct insertion of smallpox virus, a fresh and reliable virus can be obtained whenever smallpox exists.

DR. CONRAD then made some remarks on the

TREATMENT OF THE INSANE WITH SUICIDAL TENDENCIES.

He said that the insane who are inclined to suicide can be treated either by close watching, which is a method involving much expense and trouble, or by the straight-jacket, which is efficacious but very painful. He himself prefers the use of gloves of his own invention, which are far more comfortable. The gloves are stiff, and perforated to prevent sweating. They are joined together at the tip, and attached, but not closely, to the waist. He gave some cases illustrative of the value of these gloves.

DR. TEACKLE considered the gloves a great improvement on the straight-jacket.

DR. TIFFANY asked whether, when a person is bent on suicide, it can be prevented?

DR. CONRAD answered that they can for the time being be prevented, and if they can be prevented for a certain length of time they may outgrow the tendency, as has been the case in several of his patients.

DR. G. H. ROHÉ read a paper on

CERTAIN PRACTICAL POINTS IN THE PATHOLOGY, CLINICAL HISTORY AND TREATMENT OF CANCER.

After alluding to the indefinite manner in which the term *cancer* is too often applied, and to the consequent failures in treatment, he said that although absolute certainty in diagnosis was not to be hoped for, we may unhesitatingly subscribe to the statement of Dr. S. D. Gross that, "Just in proportion as our knowledge of morbid structure is positive, accurate, and comprehensive, will be the probability that we shall become skilled diagnosticians." He said that whilst the most eminent observers still hold contradictory views as to the special tissue to which the origin of cancerous growth is to be referred, it may be considered that the invariable anatomical condition present is *epithelium out of place*. He described the various theories held by Billroth, Rindfleisch, Koster, and others, as to the derivation of these epithelial cells, and said that the doctrine of Waldeyer, that "cancer is always developed from preëxisting epithelial tissue, *i. e.*, from those structures which are built up out of the upper and lower germinal layers of the embryo," seems to have the weight of authority and of clinical evidence in its favor. There is at any rate now no disagreement upon the point that the *one* histological condition is the presence of epithelial cells, confined or infiltrated in a stroma of connective tissue.

Although the ultimate cause of morbid growths seems to lie in an indefinable constitutional predisposition, Dr. Rohé considers that cancer is not either primarily or secondarily a constitutional disease in the sense that syphilis is. Even where the constitutional tendency exists, the local irritation is needed to cause the disease, *e. g.*, cancer caused by irritation of a pipe, in chimney sweeps by the irritation of the scrotum with soot, etc.

He called attention to the fact that morbid growths of an epithelial nature, but ordinarily innocent, may become malignant, such as warts, keratoses, papillomata, etc. Of this, he gave some instances which had come under his own observation. Some facts in the pathology of cancer shed light upon its clinical history, and may be considered with profit. *Pain* is a symptom popularly believed to be a constant accompaniment of cancer. So it generally is; but Dr. Rohé had met with at least four instances in which it was absent. He gave the particulars of one of these cases, in which the patient, a lady seventy-four years of age, complained of no pain, but died, nine months after he first saw her, of exhaustion, consequent on the drain on the system of a very extensive cancerous growth. Simple ulcers often cause far more pain than cancer; hence, pain cannot be relied on as a diagnostic symptom. *The induration of the morbid growth, or of the resulting ulcer*, when taken alone, is no more a characteristic symptom of cancer than that just mentioned. In cases of suspected cancer *induration of neighboring lymphatic glands* is one of the first points to be looked to for confirmatory evidence; but it should always be borne in mind that glandular enlargement is not synonymous with glandular *infiltration*. Dr. Rohé spoke of the fact that the malignancy of cancer is largely due to its tendency to produce similar growths in other parts of the body—secondary deposits, metastasis, or general infection, so called. He then described the various ways in which this takes place. As to the curative measures to be adopted, he said that in rare instances the cancerous ulcer does spontaneously cicatrize. There is really no such thing as the *cancer cachexia*, the cachexia which follows cancer being simply the result of the general breaking down of the system. He strongly recommended early operative measures, for, although there is apt to be a recurrence, the relief to the patient, the prolongation of life, and the possibility of a cure, afford amply sufficient reasons for an operation. He recommended the administration of arsenic, pushed to the limit of physiological tolerance, as very useful in modifying the tendency to epithelial degeneration.

DR. J. N. MACKENZIE described

TWO CASES OF REFLEX COUGH DUE TO NASAL POLYPI.

In both cases a dry, hacking cough had been present for years, and the patients suffered besides from obstruction of the nostrils, attacks of coryza, loss of appetite, etc., leading them to apprehend disease of the lungs. On examination, nasal polypi were discovered and removed, with the result in both cases of complete and speedy relief from the cough and other symptoms. Dr. Mackenzie said that the dependence of asthmatic attacks upon the presence of polypi in the nasal chambers is

sufficiently common, but the important *rôle* of the latter in the production of cough, has been apparently overlooked. He said that, so far as his experience went, cough is only present when the growths spring from, or in some way or other are brought in contact with, a portion of the erectile area, and generally its posterior portion. When the polypus is in such a position that it does not come in contact with this sensitive surface, no cough is produced. Dr. Mackenzie does not consider that the polypus is in itself provocative of cough or asthma, but only provokes it by irritation.

DR. L. MCLANE TIFFANY read a paper on

THE RESULT OF OPERATIVE MEASURES FOR RECTAL CANCER, WITH REPORT OF CASES.

He said that in operations undertaken for the relief or cure of malignant disease of the lower bowel, the result is considered good if prolongation of life with relief from pain is obtained. The experience of any one man in such cases can be but limited; it is only by uniting the experience of many that we can hope to discover the rules to guide the surgeon. He had already published the accounts of five operations which he had performed for cancer of the lower bowel, in different journals, and as at the time of publication the ultimate result was known only in one case, he would now proceed to report it as regarded the four others. In three cases the colon was opened in the left loin to avert impending death from obstruction; once the colon was opened in the same situation for the relief of pain without complete obstruction, and once the lower rectum, with anus, was excised for epithelioma. In two of the cases, in which left lumbar colotomy was performed, the patients lived respectively fifteen and seventeen months after the operation. In both cases the relief from pain was entire, and in both death was caused by asthenia. In the third case death was from pelvic cellulitis, after abortion, about three months after the operation. The patient had already missed two menstrual periods before the operation, but there was complete obstruction of the bowel, calling imperatively for interference. The presence of the fœtus in nowise complicated the colotomy, and but for the rapid increase of the cancer the child might have been carried to term. In the last case, in which the lower rectum, with anus, was excised, there had been no return of the disease twenty-one months after the operation. The rectum seemed to be in all respects healthy, and there was no incontinence of feces.

DR. CHARLES G. HILL read a paper entitled

THE COMMON SASSAFRAS—A POTENT DRUG AND A DANGEROUS NARCOTIC.

He said that, whilst sassafras has ceased to be considered officinal by the profession, it is still largely used as a domestic and patent medicine. His attention had been called to its powerful narcotic properties by the case of a boy who, after taking two "large swallows" from a bottle of the oil of sassafras, shortly became very stiff, and fell on the floor almost unconscious. He was recovered from this condition by the administration of a violent emetic and by copious draughts of warm water. Wishing to investigate the subject further, Dr. Hill undertook a course of experiments with this drug on mice, cats, and dogs, which he described, with results which convinced him that, instead of being an innocent and useless drug, the common sassafras possesses properties of the most potent character as a narcotic, a germicide, and an antiferment, and, if properly understood, may prove a valuable addition to our therapeutics, but if ignorantly and carelessly used may become dangerous and even fatal to human life.

DR. EUGENE F. CORDELL reported a case of

CONGENITAL ABSENCE OF ONE OF THE VALVES AT THE MITRAL ORIFICE.

The case was of especial interest, not only from the rarity of the affection—all the other valves being perfect—but also from the fact that he had diagnosticated the mitral insufficiency before the child was born from the peculiarity of the sounds heard when auscultating the fœtal heart. The child died soon after birth, and the parents gave their consent to an autopsy. The heart was shown to the members of the Faculty after the reading of the paper. After looking over a large amount of literature bearing on the subject, he had not been able to meet with a similar case.

A joint paper by W. H. HOWELL, Fellow of the Johns Hopkins University, and DR. F. DONALDSON, JR., was then read, on

THE MAXIMUM VOLUME OF BLOOD SENT OUT BY THE LEFT VENTRICLE IN A SINGLE BEAT, AND THE INFLUENCE OF VARIATIONS IN VENOUS PRESSURE, ARTERIAL PRESSURE, AND PULSE-BEAT UPON THE WORK DONE BY THE HEART.

It was observed that the methods hitherto used in estimating the quantity of blood pumped out from the left ventricle at each systole have been so indirect that little reliance can be placed upon them. The results obtained by Volkmann, Vierordt, and Fick were adverted to. They varied considerably. Dr. Donaldson and Mr. Howell, in their experiments upon this important and interesting point, made use of a dog's heart, completely isolated from all other organs of the body by Prof. Martin's method. By this method the quantity of blood ejected from the left ventricle at each systole under varying conditions of venous pressure, arterial pressure, and pulse-rate can be determined directly by catching the blood as it is pumped out from the tube connected with the aorta of the dog.

The main results of these experiments were as follows: The ratio of the maximum weight of blood pumped out from the left ventricle at each systole to the body-weight at the normal pulse-rate (120 per minute) of the dog is about $\frac{1}{700}$th, or .0014. Probably this represents very nearly the average quantity pumped out at each systole in the living dog. The precise calculations, value of the venous pressure, etc., employed in these experiments were given in support of this conclusion, and it was added that since there is so much difference in the pulse-rate between the dog and man, no inference can be made with certainty from the results obtained with the dog to the case of man.

Variations in arterial pressure have practically no direct effect whatever on the quantity of blood sent out from the left ventricle at each systole. Variations of from 58 to 147 millimetres were tried, and the amount of blood remained maximal throughout, the heart, of course, working more or less in direct proportion to the

arterial pressure against which it worked within the limits named. The venous pressure on the right side was gradually increased from 10 centimetres to 60 or 70 centimetres, and the outflow from the aorta measured for each venous pressure used. It was found that the outflow from the left ventricle, and, consequently, the work done by it, increases with the venous pressure—but not proportionally—up to the point of maximum work.

The most direct factor influencing the quantity of blood sent out from the ventricle is the intraventricular pressure, by which it is distended during diastole. During life, this pressure must be mainly owing to the action of the auricles, since the pressure in the great vein emptying into the auricles never rises to any important, positive value.

The rate of beat of the heart was varied in these experiments from 228 to 77 beats in a minute, and back again to 140 in a minute, and so on. The results were that the total outflow and the total work done during any given period of time decreases with a diminished pulse-rate, and increases with an increased pulse-rate.

DR. MICHAEL gave notice that he would move an

AMENDMENT TO THE CONSTITUTION,

to change the words "any gentleman" to "any person" in the clause relating to the admission of members.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—T. S. Latimer, M.D.

Vice-Presidents.—Drs. John R. Quinan and I. E. Atkinson.

Secretary.—Dr. G. Lane Taneyhill.

Assistant Secretary.—Dr. Robert T. Wilson.

Corresponding Secretary.—Dr. T. Barton Brune.

Reporting Secretary.—Dr. Richard Henry Thomas.

Treasurer.—Dr. W. F. A. Kemp.

Executive Committee.—Drs. P. C. Williams, Thomas F. Murdoch, L. McLane Tiffany, John S. Lynch.

After a vote of thanks to the Trustees of the Johns Hopkins University for the use of Hopkins Hall, the Faculty adjourned *sine die*.

THE AMERICAN SURGICAL ASSOCIATION.

Fifth Annual Meeting held at Washington, April 30, May 1, 2, and 3, 1884.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, APRIL 30TH—FIRST DAY.

THE meeting was called to order in the Hall of the National Museum Building by the PRESIDENT, DR. E. M. MOORE. The Secretary, Dr. J. R. Weist, read the minutes of the last meeting, which were adopted as read.

THE PRESIDENT, E. M. MOORE, M.D., of Rochester, N. Y., then delivered the *President's Address*, choosing for his subject,

EARLY AND LATE OPERATIONS.

After a few remarks in recognition of the distinction conferred upon him in his election to the office of President of the Association, and in commendation of the noble work done in the organization and support of the Association by his predecessor in the office, attention was called to the unmistakable need of a society of this kind. Herodotus tells us that the early Egyptians recognized the necessity of dividing the profession into those treating the internal diseases and those treating the external—the therapeutic and the mechanical; the peripharmicon and the periorganon. The peripharmicon has been lost, until recently the mummy of a distinguished physician has been found, wrapped in a papyrus, which gives us at least a portion of the therapeutic methods of the Egyptians fifteen hundred years before Hippocrates. Unfortunately, he said, the subject-matter is not surgical, and we have but to hope that the periorganon may yet be unrolled from the remnant of one of our own special craft. It is to be regretted that the religion of this writer forbade his publishing his name. Although Hippocrates was thus, in all probability, only a teacher of what had gone before, we must still revere his name, both because of the excellence which he must have attained and the common sense which pervades all his works.

The speaker then referred to the manner in which surgery is altered by its surroundings. It has always flourished when the mind was liberated from unnatural restraint. It is the marvellous combination of the practical surgeon and the philosopher that marks the broad, rounded character of greatness. How little of wide, popular recognition one of our profession enjoys, he said, is peculiarly illustrated in the appreciation of the great contemporaries—Pericles, Socrates, and Hippocrates, the metaphysicians and the physician. While most of the methods employed by Hippocrates have been replaced and surpassed, there can be no doubt of their successful application in his time. Another striking point in ancient surgery is the importance of operations now little thought of; and in many of our modern methods we recognize merely another form of those used by the ancients.

From this early time, the speaker passed directly to the time of the renaissance, an epoch which he said had been one of the most fruitful in all literature, the intervening time being productive of naught. The school of Salernum, he said, assisted in nothing but the retention, in a limited way, of the ideas of the past. At the time of the renaissance we meet Vesalius, a son and a grandson of physicians. Notwithstanding the great intellect of the man, however, had not the grand current of cultivation been in full flow, we should not have had a Vesalius. But if Vesalius had not lived, Eustachius, born six years after, would have taken his place. His aim was broader than that of Vesalius, and he laid the foundation of comparative anatomy.

From this wonderful time the great movement of medicine has gone on with an ever-widening stream. Next came Fallopius, then Fabricius and Harvey, and now vivisection is added to the means of investigation. The days of Perkins's tractors, Hahnemannism, eclecticism, etc., are reserved for a later date. The literary exaltation soon ran into absurdities. At the present day we are almost dazed with print, and hence there are attempts to codify knowledge; hence the retrospects, manuals, and year-books, to compress for our understanding the fertility of invention.

Reference was then made to the advance in the more important and recent operations—ovariotomy, nerve-

stretching, gastrotomy, etc. This is the golden age of inquiry. The particular movement of the day is toward specialties. The large *clientèle* of a well-known specialist is the assurance of wealth. That excellence follows large experience in narrow lines is obvious, but is there not reason to fear, the speaker asked, that a specialist who is not well informed, both by learning and practice, is apt to blunder? This is the great danger of the day. An Association such as this is the need of the present; one that represents the broad and not the narrow lines of surgery. The future to America is big with promise. The institutions which have fostered medical learning are worthy of all praise. The fabulous accumulation of wealth during the last twenty-five years occasionally induces its possessor to honor himself by the patronage of learning. We have a Johns Hopkins University, and we believe others will follow. The future worker in medicine will always reach closer and closer to the law of disease, and perhaps the exact statement which the chemist can make in definite proportions may at length crown the labors of the therapeutist: "All things are divine, but also scientifically determinable."

DR. BASIL NORRIS, Chairman of the Committee of Arrangements, made a brief report, showing that the necessary arrangements had been made, and welcomed the Association to Washington.

THE REPORT OF THE SECRETARY

showed that there are ninety-three Fellows in the Association, and three honorary members. Since the last meeting, Honorary Fellow Dr. A. C. Post and Fellow Dr. George A. Peters, both of New York, have resigned, their action being necessitated by the communication addressed to them by order of the Association, asking all members who opposed the National Code of the American Medical Association to withdraw. Dr. Markoe, who was elected a Fellow at the last meeting, declined the membership. Honorary Fellows Dr. J. Marion Sims and Dr. Willard Parker have been removed by death. The report further stated that a number of members have not yet replied to the communication addressed to them in regard to their allegiance to the Code of Ethics.

DR. J. EWING MEARS then read the report of the

COMMITTEE ON PUBLICATION.

He stated that the volume of *Transactions* had been printed as directed, and disposed of as ordered. Communications were also read from the Royal Medical and Chirurgical Society, London, King's College, London, The Royal College of Surgeons, of England, John Eric Erichsen, London, Bobb's Library, Indianapolis, The College of Physicians of Philadelphia, and the New York Academy of Medicine, acknowledging the receipt of copies of the *Transactions*.

DR. B. A. WATSON, of Jersey City, then read a paper on

AN EXPERIMENTAL STUDY OF ANÆSTHETICS.

The author introduced his subject by stating that it was the aim of his paper to show, by experiments on rabbits and dogs, the physiological action and relative safety of those anæsthetics which are most frequently used by surgeons. The anæsthetics employed were chloroform, sulphuric ether, bromide of ethyl, and various mixtures of these drugs.

The observations in these experiments were chiefly limited to the temperature, pulsations, respirations, mortality, and *post-mortem* appearances; but the conclusions reached through the experimental investigations made by Dr. H. C. Wood, of Philadelphia, for the purpose of determining the physiological action of chloroform, sulphuric ether, and bromide of ethyl on the heart are likewise mentioned.

The introduction to this article was followed by a brief explanation of these experiments, which was intended to prepare the reader for a full comprehension of the work performed, and which was connected with the anæsthetizing of eighty-two rabbits and twenty-five dogs. Following these explanatory notes, there were presented in a tabulated form the general results, which are contained in ten tables, six of which relate to the experiments performed on rabbits, and four to those on dogs.

The tables are followed by a comprehensive *résumé* of the results, and the author remarks that their most casual inspection cannot fail to impress the observer with the relatively small mortality produced by the sulphuric ether, when it is compared with that which followed the use of the bromide of ethyl, chloroform, or the mixtures which were employed.

The percentage of the mortality produced by the different anæsthetics employed in the experiments on rabbits was as follows:

Sulphuric ether, ...	16⅔
Chloroform, ...	62½
Bromide of ethyl, ...	50
Alcohol, chloroform, and ether mixture,	75
Alcohol, chloroform, and ethyl mixture,	66⅔

Attention is called to the fact that owing to the evanescent character of the bromide of ethyl, it was found impracticable to keep the rabbits constantly under the influence of this drug or its mixtures; and consequently the figures given in the above do not accurately represent the mortality which may justly be anticipated when these animals are kept under its full influence for two hours—the period during which full anæsthesia was intended to be continued in all of the experiments. The above comments are entirely limited to the administration of the bromide of ethyl and its mixtures to the rabbits, the same not applying in any degree to the dogs, or to any other anæsthetic. The whole number of dogs experimented on was twenty-five, and among these, twelve deaths occurred, in which the percentage of mortality chargeable to the different anæsthetics was as follows:

Sulphuric ether, ...	.00
Chloroform, ...	.00
Alcohol, chloroform, and ether mixture,	.80
Alcohol, chloroform, and ethyl mixture,	.80
Bromide of ethyl, ...	100.00

It is shown by the above comments, and others which follow in the author's detailed statements, that the danger arising from the use of the bromide of ethyl and its mixture is more accurately portrayed in the experiments on dogs than in those on rabbits. The author finally reaches the conclusion that the *primary effect of the bromide of ethyl resembles that of chloroform*, and not that of ether; but it is certainly much more dangerous than the former agent, especially when full anæsthesia is continued with it for a period of two hours. The

deaths which occurred in the experiments, during the administration of the ethyl, are believed to have been caused by its paralyzing action on the heart, while those occurring at a later period were probably more or less dependent on the same; but in these cases the *post-mortem* appearances reveal extreme congestion of the principal visceral organs, with other indications of inflammation in all cases in which death was sufficiently delayed.

We have now reached a point in our study of the various anæsthetics where we believe we are justified in *firmly asserting*, in the light of the theoretical and practical knowledge which we now possess of the action of the bromide of ethyl, that neither this drug nor its mixture should ever be employed for the production of anæsthesia, especially where it is necessary to prolong this state. It has long since been sufficiently shown that sulphuric ether is decidedly the safest anæsthetic which has yet been employed in general surgical practice; and our experiments are merely confirmatory of the correctness of this decision. The use of a mixture of alcohol, chloroform, and ether, for the purpose of producing anæsthesia, is theoretically wrong and practically bad, since it is unquestionably much more dangerous than sulphuric ether.

DR. W. W. DAWSON, of Cincinnati, in opening the discussion, said that he believed the sentiment of Dr. Watson's paper was correct. He had had a rather painful experience with chloroform, and narrated two cases which had terminated fatally. The first was in 1868, before the agent was considered dangerous. He was amputating a foot. The field of operation became bloodless; artificial respiration was practised without success. At that time, he said, we were unwilling to admit that chloroform could kill, it was so prompt in its action. The second case lost was that of a little boy. In that case, also, the first symptom was the cessation of hemorrhage from the field of operation. The anæsthetic was for a moment withdrawn. The patient revived, and the operation was proceeded with. Soon the operation again became bloodless, and the same occurred a third time. This time it was permanent. The heart had ceased to beat, and failed to start even after the most energetic artificial respiration.

The speaker further stated that since this experience he was very cautious in the use of the alcohol, chloroform, and ether mixture, and preferred ether alone. He further reported the case of a woman who, although she had several times taken chloroform during parturition, and at one time had remained under its influence for an hour, died after a few inhalations in a dentist's chair.

PRESIDENT MOORE called attention to the fact that the woman just spoken of was in all probability in an erect posture when inhaling the ether, a position which renders the danger much greater.

DR. DONALD MACLEAN, of Detroit, spoke strongly in favor of chloroform. He did not believe the dangers from its use much, if any, greater than those from ether. He has used it almost exclusively in his practice. A great deal of the danger, he believed, is in the mental impression made by using the anæsthetic. Other cases, too, die from other causes than the action of the anæsthetic. In this connection he reported the case of a woman whom he saw a week ago. She was a robust woman, apparently in perfect health, except a slight asthmatic dyspnœa, a common affection in Michigan. He decided to operate in a few days for an ovarian tumor. He had been away only an hour when she died. Had the operation been in progress, or had the patient taken a breath or two of chloroform, her death would have been attributed to it. He had never seen death from an anæsthetic, and had had trouble in only very few. The last case in which there was any cause for alarm was that of a man from whom he had just removed the entire tongue. The instrument not working perfectly, there was some hemorrhage. Blood was drawn into the larynx, but after removing the blood, and practising a little artificial respiration, all came right. In conclusion, he stated that while he believed in the use of chloroform, he believed it equally important that the agent be administered by a competent person, able to recognize and handle any complications that may arise.

DR. WILLIAM A. BYRD, of Quincy, Ill., took his stand with those who opposed the use of chloroform. He had lost but one case, and that a woman who had been operated upon several times before coming under his care, for a vesico-vaginal fistula; being once nine hours anæsthetized. He had also kept her under chloroform for an hour without any symptoms of danger, and the fistula was closed. When, however, he went to remove the stitches, the patient demanded an anæsthetic. She took only a few inhalations, when she suddenly died. He further spoke extensively of the action of the bromide of ethyl. He had at first used it with the fullest confidence, but had abandoned its use later, on account of its action being so profound and causing such marked suffusion of the face. He now uses a mixture containing one ounce of ethyl bromide, three ounces of ether, and two ounces of alcohol. The action of this, he said, is prompt, efficient, and, as far as his experience goes, safe.

DR. L. MCLANE TIFFANY, of Baltimore, said that he must negative absolutely the statement of the essayist in regard to the similarity of action between the bromide of ethyl and chloroform. Clinically, the action is different. He had never had a fatal case due to chloroform, although he had seen patients in great danger. No one, he believed, could use it with perfect confidence; and he referred to the experience of the late Dr. Sims, who after having most excellent results from its use, lost a case shortly before his death. He referred to the practice of Dr. Chisolm, of Baltimore, who uses the ethyl bromide in ophthalmic operations, with no inconvenience.

DR. P. S. CONNER, of Cincinnati, stated that he had used the bromide of ethyl pretty extensively in the Cincinnati Hospital. He had been both surprised and astonished at its action on the heart. He had seen the pulse run up from 100 to 120 during its administration. He had never seen an agent so mild and efficient in its action, and yet so profound, and apparently not dangerous. He did not believe that any anæsthetic agent can be called safe. It is impossible, he said, to carry patients to the border-line of life, without now and then some one slipping beyond that line. Such being the case, he believed it the duty of the surgeon to employ the agent of least danger.

At the suggestion of the President, the discussion was

suspended for the reading of the paper of DR. DAVID W. CHEEVER, of Boston, on

SOME OF THE DANGERS AND DISADVANTAGES OF ANÆSTHESIA.

The essayist stated, in the beginning of his paper, that the form of anæsthesia to be considered was that produced by sulphuric ether. Deaths from ether are rare; the speaker had not seen one in an experience of twenty-six years. The largest statistics give one death in 23,204 cases. The vast array of advantages connected with the anæsthetic state, coupled with the comparative freedom from danger, have masked dangers which may arise. Ether can kill, and there are operations that can better be done without it. The speaker then passed to the consideration of the dangers themselves. The danger in breathing ether, he said, is chiefly from impeded or failing respiration.

The first cause of danger to the respiration is the production of stertor and the falling back of the tongue.

Second, in some persons, and we cannot foresee in whom, the mucous membrane of the throat and air-passages is very sensitive to the fumes of ether, a difficulty first shown in croupy respiration, and soon followed by the flow of a frothy mucus.

Third, a most dangerous complication is tetanic setting of the inspiratory muscles of the chest. No air enters; respiration with the diaphragm fails to fill the lungs, and the patient dies as in true tetanus.

Fourth, simple exhaustion is another source of danger. Death may occur from slowly failing respiration, so gradual as not to attract attention.

Fifth, disease of the heart may cause death during the inhalation of ether. Well-marked valvular disease, pericarditis, and effusion, or a fatty or feeble heart, may contribute to a fatal result, and yet persons with valvular disease have frequently been anæsthetized in safety, by using caution and taking plenty of time.

Sixth, apoplexy, sanguineous or serous, may follow the coma of etherization in the old or in drunkards. Atheromatous vessels may give way under the great congestion produced, and the "wet brain" of alcoholism may succeed the stupor of ether.

The author now passed to the consideration of the disadvantages of anæsthesia. Etherization, in his opinion, does diminish primary shock; it removes apprehension and annuls pain, but it does not remove the secondary shock which follows an operation. While the primary effect of ether is stimulating, the secondary is exhausting. Another marked disadvantage of anæsthesia is that it decoys the operator into delay and slowness. Drunkards and steady drinkers succumb slowly to the anæsthesia of ether; they pass through a long period of excitement and delirium, and they are subject to persistent and recurrent tremor, which delays an operation, or jeopardizes its safe execution. Vomiting and lasting nausea are also among the disadvantages. This is especially disastrous in abdominal sections, in operations for hernia, and in sections of the cornea and iris. Lastly, intoxication and delirium, on coming out of anæsthesia, are especially injurious after a simple or, worse still, after a compound fracture has been set.

The following operations, Dr. Cheever believed, may be better done without anæsthesia: extraction of cataract, tracheotomy for disease, and paracentesis thoracis. He stated further that there is no doubt that complete anæsthesia during parturition leads to tardy contraction of the uterus after labor. It is a noteworthy fact that most deaths from ether occur during operations on the rectum, perineum, or vagina, the reason being that the surgeon, from his position, cannot well watch the condition of his patient. The essentials for giving ether are, an empty stomach, a loose neck, a free abdomen, an easy, semi-recumbent position, a sponge wrapped in towels for the ether, and a gag and forceps for the tongue. The paper closed with a few directions in regard to the treatment of some of the more common dangerous symptoms, and with the advice that in order to avoid asphyxia, nausea, headaches, and be *safe*, only the purest anhydrous sulphuric ether should be used.

DR. T. F. PREWITT, of St. Louis, spoke of the importance of the question under consideration. He agreed fully with Dr. Watson that ether is the safest anæsthetic agent. He never had a fatal case, but had had cases in which difficulty was experienced in reviving the patient. He congratulated Dr. Maclean on his satisfactory experience, but feared that he would yet have a reverse. He had been in the habit of using chloroform in operations upon children, and believed that it was safe, but he thought the case reported by Dr. Dawson an important one in this regard. In regard to the method of administration, he preferred the simple cone made with a towel, covered with paper, and containing a sponge. He said, however, that he had frequently seen half an hour consumed in producing anæsthesia.

DR. BONTECOU stated that he had seen probably a thousand individuals anæsthetized with chloroform before ether came so universally into use, but that he had never seen a fatal case. He however reported the case of a man who died on the table after being anæsthetized with ether, but could not state whether the death was from shock or from the operation. Since 1865 or 1866, the speaker had always used ether, not so much from preference as in deference to the sentiment of the profession in regard to the dangers of chloroform.

DR. NANCREDE referred to a method of drawing the jaw forward, as well as opening the mouth, in order to relieve asphyxia.

DR. PARKS referred to the danger of introducing blood into divided veins by performing artificial respiration, especially in operations about the neck.

DR. GEORGE W. GAY reported that he had been for twenty years connected with a large hospital in Boston, where the use of ether was a daily occurrence, but they were afraid to use chloroform on account of prejudice. The rule there is to give ether slowly. The speaker described the inhaler used. There is another method, he remarked, which had just been tried at the city hospital. It is the administration of ether by the rectum. The evaporation of the fluid from a bottle being hastened by warm water, and the vapor conducted into the rectum by means of a rubber tube. In three cases in which it was tried it acted satisfactorily.

DR. DAWSON reported two cases; one in which, in order to produce sufficient anæsthesia to perform a perineorrhaphy, he was compelled to give chloroform in addition to ether; and another in which, even with chloroform, he was unable to get the patient quiet, but had literally to cut for stone "on the wing," as he expressed it.

DR. CAMPBELL, of Augusta, had also experienced a similar difficulty in operations upon the perineum.

DR. BASIL NORRIS, U. S. A., wished to emphasize the importance of administering chloroform only with the patient in the recumbent posture. He also reported a case in which he had seen a distinguished French surgeon almost lose a patient, but by the vigorous slapping of the face and chest by an assistant, vitality was restored.

DR. WATSON said that in his statement that the action of the ethyl bromide resembled that of chloroform, he referred only to its action on the heart.

DR. CHEEVER closed the discussion with the statement that, with the jaws apart and the tongue well carried forward, it is only necessary to depress the jaw.

On account of the illness of Dr. S. D. Gross, his paper, on

WOUNDS OF THE INTESTINES

(see page 495), was read by Dr. Richardson.

DR. MACLEAN, in referring to what was said in the paper on the liability to the development of tympanites, said that he believed it, to a great extent, due in many cases to the cathartic medicines employed in connection with the cases. He stated, further, that he did not believe the author of the paper could express a preference for silk suture if he had tried the silkworm gut-suture or horse-hair. Either of these, he said, is less irritating, and has no absorbtive powers.

DR. PARKS expressed preference for the catgut suture in intestinal wounds, because, in his experience, both horse-hair and the silkworm gut are too brittle.

DR. BYRD reported several cases in which he had repaired injured intestines, using in most cases the ordinary silk suture, with good results.

DR. RICHARDSON closed the discussion by calling attention to the fact that Prof. Gross, in his paper, advocated freely opening the abdomen in cases in which injury to the intestine is suspected. He believed, for his own part, that, with our present knowledge of the impunity with which the peritoneal cavity can be handled, the advice of the distinguished author was correct, and he heartily endorsed it.

THE PRESIDENT then read a resolution, to be sent by telegraph to Dr. Gross, expressing regret at his absence, sympathy in his illness, and a hope for his speedy recovery.

DR. L. MCLANE TIFFANY, of Baltimore, next read a paper entitled

A CONTRIBUTION TO THE HISTORY OF LIGATION OF THE COMMON FEMORAL ARTERY.

After referring to the varied advice given by different authors relative to the ligation of the common femoral artery, and the fact that while some express little choice, others prefer the ligation of the external iliac, the essayist reported several cases, with the cause for the operation, its method, and results.

The following conclusions were arrived at:

1. Ligation of the common femoral artery in continuity for distal wound is attended with great mortality.

2. Ligation for elephantiasis and aneurism is proper.

3. The crural sheath should be freely opened, and the vessel carefully examined for the branches of the profunda and epigastric; ligation not to be made within a half or three-fourths of an inch of either.

4. A half or three-quarters of an inch below Poupart's ligament is the best locality for the ligature.

5. The presence of a small branch near the seat of ligature does not contraindicate the operation; such branch should be also tied.

DR. CAMPBELL reported three cases in which he had ligated the common femoral for injury, with a fatal result in each case. He said that almost immediately after the operation the limb became cold, and then shock ensued, the patient dying even before a line of demarcation had time to form. He had had gangrene result, from a ligation of the superficial femoral, below the knee, but the process was quite different from what occurred in these cases; there the necrosis occurred slowly; here, the action was rapid, and death resulted from some impression made on the general system. In cases of aneurism, in which a good collateral circulation has been formed, the result is, necessarily, more favorable.

DR. BASIL NORRIS reported a case which occurred to him and his associates in early army duty, in which they ligated the common femoral for aneurism, the wound healing promptly, and perfect recovery ensuing.

DR. TIFFANY concluded the discussion by thanking Dr. Campbell for so heartily endorsing his conclusions.

DR. P. S. CONNER, of Cincinnati, then read a paper on

TRAUMATIC CEPHALHYDROCELE, WITH A REPORT OF TWO CASES.

The first case was that of a boy, twelve and a half years old, who, as the result of a fall from a wagon, sustained a depressed fracture of the occipital bone, with the formation of a cyst containing a pale, serous fluid, believed to be of cerebro-spinal origin. The case was treated by occasional removal of a part of the fluid and compression. A good recovery was made.

The second case was produced in a different manner, but resulted in a tumor with much the same features.

Reference was also made to twelve other reported cases, and deductions drawn from them relative to the cause, treatment, and prognosis of the injury.

There being no discussion of this paper, DR. CHARLES B. NANCREDE, of Philadelphia, read his paper on

SURGICAL INTERFERENCE IN CEREBRAL ABSCESS.

After referring to the many cases in which death occurs from cerebral abscess without any procedure having been instituted, he reported quite an array of cases in which the trephine had been applied and pus evacuated, either immediately or after puncture of the membranes. One very interesting case was that in which after trephining through the skull unmistakable evidences of the presence of pus were present, but several punctures of an aspirator needle failed to discover its exact location. When a large abscess was opened by the knife and a half ounce of pus allowed to flow, the patient, apparently dead at the time of the incision, revived.

DR. RICHARDSON reported a case in which no evidence of fracture of the skull could be detected during life, but in which the autopsy revealed a very minute fissure, with an abscess in the brain substance.

DR. CAMPBELL narrated the case of a soldier who was struck by the falling débris of a house during a

battle. His skull was fractured. Unmistakable symptoms of abscess followed. The skull was trephined, three or four ounces of pus were evacuated from a large cavity, but respiration immediately ceased, apparently as a result of the removal of the pressure from the brain.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, April 22, 1884.

THE VICE-PRESIDENT, CHARLES MCBURNEY, M.D., IN THE CHAIR.

ELEPHANTIASIS; LIGATION OF THE FEMORAL ARTERY.

DR. L. A. STIMSON presented a woman whose femoral artery he tied four weeks ago for elephantiasis of the leg.

She is fifty years old, and has always been healthy. Twelve years ago she had an attack of erysipelas in the foot, which soon got entirely well, but was followed after a month by another in the right leg which left the limb somewhat swollen; other attacks followed at intervals of two and three months for several years, leaving the limb larger, after each attack, than it was before. She was admitted to Bellevue Hospital, March 4, 1884, with well-marked elephantiasis of the entire right leg from the knee to the ankle, both the foot and thigh being very œdematous and the skin normal. She was kept in bed, firm pressure made on the leg by a roller bandage over a layer of cotton, and an elastic bandage kept upon the thigh. After about three weeks of this treatment the œdema had left the thigh, but the leg was unchanged, and still measured twenty-three and a half inches in circumference. The other leg measured eight and a half inches at the calf. March 24, the femoral artery was tied at the apex of Scarpa's space with catgut, and the limb wrapped in a thick layer of cotton. April 2, the dressing was changed, and the wound found healed; the leg measured twenty-one inches and the foot was much less œdematous. The rubber bandage was then applied snugly to the leg over a layer of cotton, and has been used constantly to the present time, and the patient kept in bed. April 4, the leg measured seventeen inches; April 8, fourteen and three-fourths inches; April 12, twelve and three-fourths inches; and that is its present size.

Dr. Stimson had refrained from using elastic pressure before the operation because the books speak so discouragingly of its efficiency, and he regretted now that he had not used it, even if only to prove such inefficiency, and in a similar case he would give it a thorough trial before resorting to operation. At the same time he felt obliged to call attention to the rapid decrease of the œdema during the first week under the influence of the operation alone, and he thought it quite probable that the ligature and the bandage employed in concert had done much more than either would have done alone.

DR. POST had a case, several years ago, of commencing elephantiasis, occurring in a person who came from the West Indies, and in which great benefit followed continued pressure from the bandage. The disease was in its early stage. When the patient left, there was an approximation to an apparent cure.

DR. BRIDDON saw a case, in the New York Dispensary, several years ago, in which there was considerable doubt as to whether it was a case of obstruction of the lymphatics only, or one of true elephantiasis; but, at all events, marked benefit was afforded by the application of bandages wet with soda water. The condition, however, returned in a measure, due to discontinuance of the treatment, and the return of the patient to his bad habits. Dr. Briddon remarked that, if his memory served him correctly, Dr. Carnochan was the first who treated cases of this kind by ligation of the femoral artery.

DR. LITTLE said that Dr. Carnochan's case was the first treated in this way; only temporary relief was afforded.

DR. E. L. KEYES said that the opinion of dermatologists was against ligation of the femoral artery in the treatment of elephantiasis. The twelfth case operated upon was reported by Dr. Buchanan in the *British Medical Journal*, 1867, p. 465, who reported that nine had been cured; in two improvement occurred, and a third patient died of pyæmia from the operation.

In the *Deutsche Zeitschrift f. Chirurgie*, 1876, thirty-two cases were reported. Of these, there were twenty-three in which ligation of the femoral artery was performed, and of the twenty-three cases there were relapses in all except three. The consequence is that the operation is looked upon as one which may afford rapid amelioration in all cases, perhaps, but it does not give a permanently favorable result. Dr. Carnochan's case (AMERICAN JOURNAL OF THE MEDICAL SCIENCES, July, 1867, p. 109) was one of elephantiasis græcorum, which differed materially from elephantiasis arabum, the malady treated in Dr. Stimson's case, and in most other cases of ligation.

Another case had been reported by Dr. Van Zetti (*Gaz. des Hôp.*, No. 144, 1876, p. 572), in which the femoral artery was tied. A starch bandage was applied, and the patient was directed to go home, and to keep up the pressure by means of such a bandage for some time. At the end of three years the patient returned, having kept up pressure by means of the starch bandage continuously for the entire time, and the result was that the disease had become permanently cured, and the limb was somewhat smaller than its fellow. Dr. Keyes thought that it would be proper to apply pressure, not only to reduce the œdema, but for the purpose of maintaining continued pressure to prevent the disease from starting afresh. So far, then, as the present evidence stands, it is to the effect that the operation always gives benefit, but, generally, it is temporary.

URETHRAL CALCULUS.

DR. JAMES L. LITTLE presented a specimen accompanied by the following history: On October 26, 1883, I was called to see a boy about twelve years of age, who gave the following history: The night before, while playing marbles in a stable, he received a severe contusion of the perineum, by suddenly squatting down and coming in contact with the blunt end of an iron hook. This gave rise to considerable pain and straining without enabling him to void his urine. In the morning, about nine o'clock, his straining efforts were followed by blood and bloody urine. Dr. Gibney was called to see him in the morning, and believing that a laceration of the urethra existed, sent for me. Upon examination, I found a considerable tumefaction and discoloration of

the perineum and scrotum; the bladder was distended, and bloody urine dribbled from the meatus. On straining, clear blood, followed by a little urine, was passed. The sound was arrested just opposite the pubes, coming in contact with a substance, which, at the time, was supposed to be bare bone. The patient was etherized, and a free incision made in the median line of the perineum, cutting through œdematous tissue until the urethra was reached. There was no extravasation of blood in the deeper tissues, nor could any laceration of the urethra be detected. The urethra was opened, a catheter passed, and the bladder emptied. The urine was discolored with blood. A probe passed upwards into the urethra, came in contact with a hard substance, which, when withdrawn by a pair of forceps, proved to be a rough calculus.

The symptoms which presented themselves on first seeing the case, together with the incomplete history, plainly indicated laceration of the urethra. A more careful study of the case, however, showed that as no blood followed immediately after the injury, but came on several hours later, while making some straining efforts to evacuate the contents of his bladder, it was plainly due to the passage of the calculus through the urethra, and not to the original injury. The patient made a good recovery, six weeks after the operation a good-sized instrument passing into the bladder without any obstruction.

On inquiry, I found that the boy had suffered from symptoms of stone, for nearly two years, but, considering the size and rough surface of the calculus, they were very slight.

CALCULUS REMOVED BY LITHOLAPAXY.

DR. LITTLE also presented a specimen of vesical calculus which he removed March 22d from a patient sixty-six years of age, who presented himself at the Post-graduate Medical School with symptoms of enlarged prostate and also stone in the bladder. On introducing a sound he touched a stone without difficulty. The patient was sent to St. Luke's Hospital, where he was etherized and Dr. Little made an attempt to seize the stone and crush it. After working for three-quarters of an hour, he touched it with the sound, but was unable to seize it with the lithotrite. The bladder was therefore washed out with Thiersch's boro-salicylic solution and further operative procedure discontinued. No bad symptoms followed the operation. Two weeks afterward he again etherized the patient, and after half an hour's manipulation came in contact with the stone, seized it, but could not retain it in the grasp of the instrument, and was unable to find it again. He then washed out the bladder with the same solution as before. No reaction followed, and the patient was much better after than before the operation. A week later he again tried to seize the stone, succeeded in catching it with a grasp of about three-quarters of an inch in diameter, crushed it, and after that broke up the separate fragments without difficulty, removing them with the evacuator. The patient made a good recovery. On examining the fragments he found that the stone was a round, flat one, and this was probably the reason why he failed to grasp it with the lithotrite at the previous operations.

CALCULUS REMOVED FROM THE BLADDER OF A WOMAN BY LITHOLAPAXY.

DR. LITTLE also presented fragments of a stone which he removed from the bladder of a woman, sixty-five years of age, accompanied by the following history furnished by Dr. William R. Larkin, acting house-surgeon to St. Vincent's Hospital.

Her father passed at frequent intervals small phosphatic calculi per urethram. The rest of the family were always very healthy. The patient states that she has always been healthy until two years ago, when she began to experience some difficulty in voiding her urine, especially in cold or inclement weather. The urine passed was slightly turbid, and gradually grew more and more cloudy. Twelve months ago she had acute retention, necessitating catheterization. Three months ago she had a second attack, which was relieved by the catheter, and since that date she has had her urine drawn at frequent intervals. Since her second acute attack of retention she has passed blood and an abundance of mucus. She states that when she first noticed the trouble caused by urination, two years ago, she had also frequent attacks of severe lancinating pain, especially marked and intensified on micturition. The pain was referred to the bladder, and radiated down the thighs to the knees, and had gradually increased in intensity so that the patient dreaded to pass her water. On admission to St. Vincent's Hospital the patient looked "careworn," face pale, pulse rapid, but strong, her appetite and general condition quite poor, and she suffered from loss of sleep. On examination, a vesical calculus, rather large and somewhat soft, was found. A day was appointed for its removal, but, in the meantime, a painful carbuncle appeared on the right buttock, in consequence of which the operation was postponed. On April 5th the patient was anæsthetized and litholapaxy successfully performed. No difficulty was found in seizing the stone. A short lithotrite (Thompson's) belonging to Dr. George A. Peters was used. This was much easier managed than the long instrument for the male bladder. A straight evacuating catheter, No. 29 French, was introduced, and the fragments removed by Bigelow's evacuator. Before introducing the catheter, the urethra was slightly dilated by means of Dr. S. D. Powell's four-bladed dilator. After the operation the bladder was thoroughly washed out with a solution of boro-salicylic acid, and the patient put to bed. The subsequent progress of the case was entirely favorable. Two weeks after the operation the patient left the Hospital, free from all symptoms, and having complete control over her bladder.

DR. KEYES said that he had, in several instances, experienced difficulty in attempting to pick up a small, flat stone with an instrument having the double curve of Bigelow. He thought it was impossible with the patient in position to pick up a small, flat piece of stone from the floor of the bladder with a lithotrite that has a double curve in cases in which the *bas-fond* of the bladder is deep and precipitous. He had had constructed an instrument without the extra curve in the female blade and in which the blades came very close together at the tip, with the female blade very thin, and with which he had been able to pick up a thin piece of stone from the floor of the bladder as well as from any other place. In

cases of very large prostate symmetrically developed, and a fairly large calculus, an instrument with the extra curve may be of some advantage.

DR. LITTLE said that the stone was finally seized with a Thompson's lithotrite without the double curve. He also stated that at the first two attempts he was unable to seize, or even to find the calculus. This case also illustrated what he had seen in several cases in which the patient was suffering from symptoms due to enlargement of the prostate as well as from stone, that the manipulations necessary to the operation of litholapaxy relieve the prostatic symptoms. In this case, the patient's symptoms were greatly improved by the attempts to find the stone. This, he thought, was explained by the dilatation of the urethra and the neck of the bladder, by the introduction of the evacuating catheters and the large lithotrite, and the thorough washing out of the bladder. In a case on which he operated last spring, at Woodstock, Vermont, the patient, a man, seventy-seven years of age, had enlarged prostate, and had been compelled to use the soft catheter every hour for nearly three months. Immediately after the stone was removed, which was a large one, measuring one inch and a quarter in diameter, he was able to hold his water for three hours, and on the third day he held it for six hours and passed it without the aid of a catheter. This condition lasted for over two months, the prostatic symptoms then reappeared, and the use of the catheter again became necessary.

DR. BRIDDON had seen two cases of impacted calculus in the urethra. The first occurred in his service in the New York Dispensary, and in a child two years old. The patient had symptoms of retention of urine, and the bladder was distended upwards to a point midway between the pubes and umbilicus. A catheter was introduced, and the sensation of passing over a foreign body was experienced in the deeper portion of the urethra, but the instrument entered the bladder and emptied it, and then came in contact with a stone. He appointed the following day for an operation, and the late Dr. Buck was present to assist. Dr. Briddon retracted the foreskin and discovered that there was a calculus in the urethra and it was removed. On introducing the staff into the bladder, another calculus was touched, and was removed by perineal incision.

The second case occurred in a child one year old, in his service in the Presbyterian Hospital, within the last year. Retention had occurred two or three times before admission, and when he saw the patient retention was quite pronounced. On the introduction of the catheter, a foreign body was found in the deeper urethra, but there was no difficulty in passing the instrument beyond the obstruction. In that case he cut the child on the following day, and removed a small calculus.

Dr. Briddon also referred to the case of a man in whose bladder he found a calculus with a cockspur projection, which he broke off with his finger, and after that was able to feel the remaining portion of the calculus in a sac in the bladder, but was unable readily to get it out. After considerable exertion with a small scoop, he succeeded in tilting the calculus out, which was about the size of a filbert. The man returned within the last two or three weeks to the Presbyterian Hospital with another calculus in the bladder. He performed litholapaxy, but had considerable difficulty in catching the stone. He was at work with the instrument in the bladder at least three-quarters of an hour, but no reaction whatever followed the operation.

SECONDARY HEMORRHAGE FOLLOWING FRACTURE WITHOUT INJURY TO THE ARTERY BY THE BONE.

DR. L. A. STIMSON reported a case of secondary hemorrhage following fracture without direct injury to the artery, occurring in the case of a man, twenty-five years of age, who was admitted to Bellevue Hospital about the middle of March with fracture of the right leg caused by being run over by a horse-car. The fracture was at the junction of the lower with the middle third, and there was considerable laceration of the integument upon the anterior portion of the leg. The bleeding at the time of his admission was slight. The wound was cleaned with the corrosive sublimate solution and thorough drainage adopted. On the eighth day after admission a profuse hemorrhage occurred, and the patient died a few hours afterward. At the autopsy, on exposing the anterior tibial artery, he found a ragged opening on its anterior surface one-third of an inch long, and situated an inch and a quarter above the line of fracture, and immediately above this large, ragged opening there was a small pin-hole opening; there was no clot in the vessel, the bone did not press upon it, and there was but little inflammation about it. The posterior tibial artery was thickened and discolored at the same level, and apparently undergoing an inflammatory process which might have terminated in thrombosis or ulceration, as the anterior vessel had done, if the patient had lived longer.

DR. MARKOE said that, at one time, he took pains to collect a number of cases of secondary hemorrhage after fracture, and in all of them, thirteen in number, he found the wound had been manifestly caused by the rubbing of the sharp edge of the bone, either of the fracture or of a necrosed portion, against the surface of the artery.

DR. STIMSON remarked that in his case there was no possibility of injury occurring from either of these causes.

FIBRO-SARCOMA OF THE KNEE-JOINT.

DR. MCBURNEY presented, in behalf of Dr. Weir, a small tumor which had been removed from the knee-joint, where it simulated a loose cartilage, and was attached by a long pedicle. The tumor measured one and a half by one inch. It was submitted to Dr. Peabody for microscopical examination, who made the following report:

"I have found no reason to change my mind regarding your knee-joint mass, and would only add that the spindle cells are so few in proportion to the fibrous tissue that I should suppose the prognosis would be rather that of a fibroma than of a sarcoma."

NEWS ITEMS.

GOVERNMENT QUARANTINES are now open at Ship Island, Miss., in the Gulf, and at Sapalo, off the coast of Georgia, the former under the charge of Surgeon Robert D. Murray, of the Marine-Hospital Service, and the latter under Acting Assistant Surgeon George H. Stone, stationed at Savannah, with Acting Assistant Surgeon

Brunner at the Station on Blackbeard Island, Sapalo Sound. The Cape Charles Quarantine Station, on Fisherman's Island, Chesapeake Bay, will be opened on the 15th instant, Passed Assistant Surgeon Fairfax Irwin, U. S. Marine-Hospital Service, in charge.

YELLOW FEVER AT RIO.—The yellow fever is on the increase at Rio; according to consular reports there were 28 deaths for the week ending March 15th, and 42 deaths from this disease for the week ending March 22d.

CHOLERA AT CALCUTTA.—Reports from Calcutta show an increase in cholera deaths, 51 having occurred during the week ending March 8th, and 95 deaths during the week ending March 15th.

THE HOMŒOPATHIC BILL before Congress, which is being pushed by its friends, has had several petitions presented in its favor during the past week; Senators Pendleton, of Ohio, Sawyer, of Wisconsin, Blair, of New Hampshire, and Colquitt, of Georgia, each presented petitions from citizens of their respective States, praying Congress for the passage of Senate bill 1223, making all qualified physicians equal before the law. For the benefit of our readers who may wish to know more about this bill, we herewith give its full text:

"S. 1223. A bill to secure to the medical profession equal rights in the service of the United States.

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

"That all appointments to medical service under the Government shall be made from graduates of legally chartered medical institutions, without discrimination in favor or against any school or theory of medical practice.

"Sec. 2. That any violation of the foregoing section shall be punished in the same manner as prescribed for like offences by the Act entitled, 'An Act to regulate and improve the civil service of the United States,' approved January sixteenth, eighteen hundred and eighty-three."

Read twice and referred to the Committee on Civil Service and Retrenchment.

ARMY MEDICAL OFFICERS.—The Senate has just passed a bill defining the title and duties of certain officers of the Medical Department of the Army. It prescribes that the six officers of that department having the rank of Colonel, shall be styled Assistant Surgeons-General; and the officers with the rank of Lieutenant-Colonel, shall be styled Deputy Surgeons-General. The rank and pay of all to remain as at present.

A COMPLIMENTARY DINNER TO PROF. ALFRED STILLÉ, M.D.—On behalf of the medical profession of Philadelphia, the following letter was addressed recently to Dr. Stillé:

DEAR DR. STILLÉ:

The undersigned members of the Medical Profession of Philadelphia, having learned with sincere regret that you are about to retire from the Chair of Medicine in the University of Pennsylvania, which you have adorned for so many years with so much honor to yourself, and so much credit to that venerable institution, and highly appreciating your dignified course as a professor, the valuable services which you have rendered to the progress of medical education and medical science, and your scholarly attainments as a writer, beg, as a fitting expression of their friendship and esteem, to tender you a public dinner, to be given at such time as may be most agreeable to yourself.

We have the honor to be, very truly, your friends,

(Signed), S. D. Gross, J. M. Da Costa, Albert H. Smith, D. Hayes Agnew, W. S. W. Ruschenberger, William Pepper, Roberts Bartholow, Samuel Lewis, Ellwood Wilson, James H. Hutchinson, J. Ewing Mears, J. H. Brinton, S. W. Gross, I. Minis Hays, R. A. Cleeman.

To this letter the following reply was received:

GENTLEMEN:

You have honored me with an invitation at once the most flattering to my professional pride and to my personal feelings that it was ever my good fortune to receive.

Some among you have had occasion to observe my public career, and others to judge of its quality and fruits. I may, therefore, well be proud of its receiving so cordial an approval from you, as well as grateful for the friendship of gentlemen who so conspicuously adorn the medical profession.

It will afford me great pleasure to meet you in the manner you propose, at any time that may be most convenient to yourselves.

I remain, with great respect, very sincerely yours,

ALFRED STILLÉ.

The dinner will be given at the Hotel Bellevue, on Thursday evening, May 22.

HARVARD UNIVERSITY.—Dr. Robert T. Edes has been appointed to fill the Chair of Clinical Medicine in Harvard University, made vacant by the death of Dr. Calvin Ellis.

GIFT TO BELLEVUE HOSPITAL MEDICAL COLLEGE.—Mr. Andrew Carnegie, one of the trustees of this school, has recently given the sum of fifty thousand dollars to the college, to be expended in the erection of a building, and in apparatus for laboratories for practical work and teaching in everything relating to microscopical and experimental research in the different departments of medicine. The building will belong to the Bellevue Hospital Medical College, but the advantages pertaining thereto will not be restricted to the students connected with the college; they will be open to students connected with other schools and to members of the medical profession throughout the country. It is believed that there is now no distinct building in this country on so large a scale as that which it is proposed to erect exclusively devoted to the same object.

CHICAGO MEDICAL COLLEGE.—Dr. W. W. Jaggard has just been elected Adjunct Professor of Obstetrics in this institution.

THE DWIGHT LIFE INSURANCE CASE.—We are requested to state that the Ætna Life Insurance Company of Hartford, which recently paid the amount of Col. Dwight's life insurance policy issued by them, was not a member of the combination of companies formed to contest the claim of the Dwight heirs. This combina-

tion, we are informed, is still firm in its determination to contest the claim.

PENNSYLVANIA HOSPITAL.—DR. D. HAYES AGNEW has recently resigned his position as Surgeon to this Hospital, and the vacancy has been filled by the election of DR. JOHN H. PACKARD.

SALE OF IMPURE ICE ILLEGAL IN CONNECTICUT.—The following bill, introduced by the State Board of Health of Connecticut, has been passed by both branches of the Legislature: "Any person who shall self, or offer to sell, for family or hotel use, any ice cut or taken from a pond or lake into which any sewer empties, or from such part of any river or other stream as is below and within two miles of the outlet of any sewer entering the same, shall be fined fifty dollars for each offence."—*Sanitary Engineer*, March 27, 1884.

ALABAMA STATE MEDICAL SOCIETY AND THE NEW CODE.—At the annnal meeting of the Alabama State Medical Association, held at Selma, on April 9th, the following resolutions, introduced by Dr. W. O. Baldwin, of Montgomery, were adopted:

Resolved, That the members of the Medical Association of the State of Alabama have watched with deep interest the progress of the struggle, which for the past two years has been going on in the New York State Medical Society, between the advocates of the ancient and established ethics of the medical profession, as embodied in the Code of Ethics of the American Medical Association, as heretofore recognized and observed by all physicians of reputable standing in all the countries of the civilized world on the one hand, and on the other hand the advocates of the so-called "New Code," or New York Code, which in effect proposes to degrade the medical profession by opening the way for professional association with irregulars and charlatans.

Resolved, That all hope of the prevalence of wise and conservative counsels in the New York State Medical Society having been dissipated by its action at its recent session in Albany, no honorable course was left for the adherents of the established ethics except that which they have chosen to pursue, namely, to separate themselves from the demoralizing movement which they were unable to control, and to organize themselves into a new Association for the maintenance of the honor and dignity of the profession in their State.

Resolved, That in doing this, these gentlemen, Flint, Jr., Gouley, Didama, Squib, Rochester, Flint, Sr., Sayre, Fox, and their associates have earned for themselves the thanks of the medical profession of the whole country, and we extend to them our congratulations and fraternal good will.

Resolved, That in order still further to signalize our appreciation of their recent action, a copy of these resolutions with the greetings of this Association be forwarded by our President to Dr. H. D. Didama, of Syracuse, the President-elect of the New York State Medical Association, wishing them prosperous fortunes and abundant success in the further development and fruition of their noble work.

Resolved, That a copy of these proceedings be also forwarded to THE MEDICAL NEWS, with a request that they be published.

DR. MORELL MACKENZIE'S NEW EDITION OF DISEASES OF THE THROAT AND NOSE.—A great fire recently occurred in the city of London, in which the premises of Messrs. Pardon & Sons, who have long been concerned with the printing of medical books and journals, suffered severely. Amongst other losses we learn that the entire edition of the long-promised second volume of Dr. Morell Mackenzie's work on *Diseases of the Throat and Nose* has been destroyed. Fortunately it will be possible to reprint the book from proof-sheets in the possession of the author, but the publication will necessarily be delayed for some months.

RECENT SANITARY LEGISLATION IN NEW JERSEY.—The Legislature of New Jersey has given increased powers to local Boards of Health by permitting them to pass ordinances for the following purposes:

To regulate and control the method of construction, the location, the method or manner of emptying and the time or frequency of cleansing of all cesspools and privy-vaults; to regulate house drainage and connection with sewers and cesspools; to protect the public water supply and to prevent the pollution of the same, and to close any well the water of which is dangerous to health; to remove to a suitable place persons sick with any contagious disease; to regulate the burial and disinterment of human bodies. These powers are in addition to those already given by the law of 1882.

OBITUARY RECORD.—WILLIARD PARKER, M.D., LL.D., died at his residence in New York City, on Friday, April 26th. For more than a year he had suffered from pyelitis. On April 13th he had a stroke of paralysis with aphasia, and his death was not unexpected.

Dr. Parker was born in Hillsboro, N. H., on September 2, 1800. On both sides he was descended from English Puritan blood. Being the oldest child of his parents, much of his time was spent working on the farm until he was nineteen years of age, thus giving him an amount of physical vigor which has stood him in good stead for many years. While thus working he was reading and studying in his leisure, and he prepared himself to teach school, which he commenced on leaving the farm at nineteen. At the same time he prepared himself for college, and entered Harvard University, from which he graduated in 1826. During his first year at Harvard an incident occurred which turned his attention to surgery. His chum happened to have a strangulated hernia, which the surgeon of the town was unable to reduce. Dr. John C. Warren, then Professor of Surgery in Harvard, was called in, and his facility in diagnosticating and reducing it so impressed young Parker that he immediately resolved to study medicine. On graduating from Harvard he entered the offices of Drs. Warren and Townsend as a medical student. In the spring of 1827 he received the appointment of House Physician in the U. S. Marine Hospital, at Chelsea, where he remained about two years. In the winter of 1828–9 he became the private pupil of Dr. John C. Warren, whose lectures he had attended for two years, The office of House Surgeon having been just created in the Massachusetts General Hospital, the position was offered to young Parker, who accepted it, serving for about a year, and attending lectures at the same

time. In February, 1830, he received his degree of Doctor in Medicine. Previous to his graduation he delivered, during the summer of 1829, a course of lectures upon anatomy in the Medical School at Woodstock, Vt. In June, 1830, he was appointed to the Chair of Anatomy in the Berkshire Medical School, at Pittsfield, Mass., while he continued his lectures at the Woodstock School. In 1832, a vacancy having occurred in the Chair of Surgery in the Pittsfield School, Dr. Parker was appointed to it, thus delivering two lectures daily. In 1836 he accepted the Chair of Surgery in the Cincinnati Medical College, but soon afterwards went abroad and spent some time in the English and French Hospitals. Returning to America he intended to make Cincinnati his home, but was compelled to leave the West on account of the injurious effect of the climate upon his health. In 1839 he received the appointment to the Chair of Surgery in the College of Physicians and Surgeons, New York City, and it was this appointment which enabled him to initiate the system of college clinics in America. Appreciating the want of practical demonstration in teaching surgery, and holding at the time no hospital position, he visited, with the students, two of the city dispensaries. Soon afterwards interesting cases were selected and taken from the dispensaries to the college, where, in the amphitheatre, superior advantages were offered for making diagnoses and performing operations before the class.

In 1845, the City Almshouse, now Bellevue Hospital, was reorganized under a board of governors, and Dr. Parker and the late Dr. James R. Wood were appointed visiting surgeons. Ten years afterwards, in 1856, he was appointed visiting surgeon to the New York Hospital. During these ten years his abilities as a daring and skilful, yet conservative and prudent surgeon, and his wisdom and foresight in diagnosis, had become rapidly recognized. In 1865, on the death of Dr. Valentine Mott, the President of the State Inebriate Asylum at Binghamton, Dr. Parker was appointed his successor, and to this institution he devoted much time and thought. In 1870, he resigned his Chair in the College of Physicians and Surgeons, becoming Emeritus Professor of Surgery; and in the same year he received the degree of LL.D. from Princeton College.

Although Dr. Parker's professional work was not in any special field of medicine, he had his preferences. On one occasion, being asked what these were, he replied:

"Medical treatment and diagnosis as associated with surgical cases. If a man does not familiarize himself with different remedies and their applicability to certain special disorders resulting from surgical cases, he degenerates into nothing more or less than a butcher. It is the glory of the profession to save a limb. But that which I particularly regard as beautiful in its results and satisfactory in its issues is the cutting down for and ligating arteries."

He was the first to point out the distinction between "Concussion of Nerves" and "Concussion of Nerve-Centres." Among his contributions to surgery are cystotomy for chronic cystitis, and the operation for abscess of the appendix vermiformis. His operation for the relief of laceration of the perineum through the sphincter was an important contribution to the surgery of this affection. He ligated the subclavian artery five times, and was the first, in America, to ligate the common carotid and vertebral arteries, in this operation, to prevent hemorrhage by anastomosis.

As a teacher, Dr. Parker had a high reputation and marked success. With a fine personal presence, and a courteous and affable manner he won the personal regard of his pupils, and at the same time riveted their attention by his lucid style and by the simple, common-sense character of his operations and general treatment. Dr. Parker left no works on medicine; the reports of his cases even were made by others. His time was so fully occupied with his lectures and the demands of an immense private practice, that he found no time for writing.

He was consulting surgeon to the New York, Bellevue, St. Luke's, Roosevelt, and Mount Sinai Hospitals, and to the Home for Ruptured and Crippled. He leaves a wife, a son, Dr. Willard Parker, Jr., and two daughters.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending April 19, 1884, indicate that inflammation of the brain, pneumonia, and erysipelas have increased, and that remittent fever, diarrhœa, and intermittent fever have decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending April 19, and since, at eight places, scarlet fever at twenty-three places, and measles at seven places.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 22 TO APRIL 28, 1884.

PORTER, JOSEPH Y., *Captain and Assistant Surgeon.*—Granted leave of absence for two months, to take affect about May 5, 1884.—*Par. S. O. 38, Headquarters Division of the Missouri,* April 19, 1884.

BIART, VICTOR, *Captain and Assistant Surgeon.*—Granted leave of absence for one year on surgeon's certificate of disability, with permission to leave the Division of the Missouri.—*Par. 2, S. O. 91, A. G. O.,* April 19, 1884.

LA GARDE, LOUIS A., *Captain and Assistant Surgeon.*—Granted leave of absence for one month, with permission to apply for two months' extension.—*Par. 1, S. O. 91, A. G. O.,* April 19, 1884.

NEWTON, R. C., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Sill, Indian Territory, and ordered to Fort Elliott, Texas, for duty.—*Par. 1, S. O. 77, Headquarters Department of the Missouri,* April 14, 1884.

CHAPIN, ALONZO R., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Douglas, Utah, and ordered to Fort Laramie, Wyoming, for duty.—*Par. 2, S. O. 33, Headquarters Department of the Platte,* April 15, 1884.

COFF, JOHN VAN R., *Captain and Assistant Surgeon.*—To be relieved from duty at Alcatraz Island, California, and to report to the Commanding Officer at Fort Mason, California, for duty as Post Surgeon.—*Par. 3, S. O. 45, Headquarters Department of California,* April 16, 1884.

BARROWS, C. C., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Grant, A. T., and ordered to report for duty at Whipple Barracks, A. T., relieving First Lieutenant W. E. Hopkins, Assistant Surgeon, who, upon being relieved, will report for duty as Post Surgeon at Fort Grant, A. T.—*Par. 1, S. O. 31, Headquarters Department of Arizona,* April 21, 1884.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*